



# **STIC Search Report**

**EIC 1700**

**STIC Database Tracking Number: 95083**

**TO: Amanda Walke**

**Location:**

**Art Unit: 1752**

**June 3, 2003**

**Case Serial Number: 09/893772**

**From: John Calve**

**Location: EIC 1700**

**CP3/4-3D62**

**Phone: 703-308-4139**

**John.calve@uspto.gov**

## **Search Notes**

=> d L18 10,20,30,40,50,60,70,80,90,100 cbib abs hitstr

L18 ANSWER 10 OF 201 HCA COPYRIGHT 2003 ACS

127:18189 Modified polysiloxanes with long hydrocarbon end groups and manufacture and recovery thereof. Ito, Koji; Nakamura, Motokazu (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 09100353 A2 19970415 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-191995 19960722. PRIORITY: JP 1995-192874 19950728.

AB The title polymers giving colored waxes with dyes, suitable for water-resistant coloring materials, have the general formula  $R_1R_2R_5SiO(SiR_1R_2O)_p[Si(R_3)(R_6NHR_4)O]_qSiR_1R_2R_5$  ( $R_1-3 = C_1-6$  alkyl,  $C_6-10$  arom. hydrocarbon group with or without  $C_1-6$  alkyl group;  $R_4 = H$ ,  $C_1-6$  alkyl,  $C_1-6$  .omega.-aminoalkyl;  $R_5 = C_{16-600}$  alkyl;  $R_6 = C_3-18$  alkylene;  $p = 0-3000$ ;  $q = 1-3000$ ). Silanol-terminated polyethylene, octamethylcyclotetrasiloxane, and 3-aminopropyldimethoxysilane gave a polyethylene-terminated amino group-contg. siloxane which was treated with tetrabromotetrachlorofluorescein to obtain a salt as a red wax.

IT **190125-99-6P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(modified polysiloxanes with long hydrocarbon end groups and manuf. and recovery thereof)

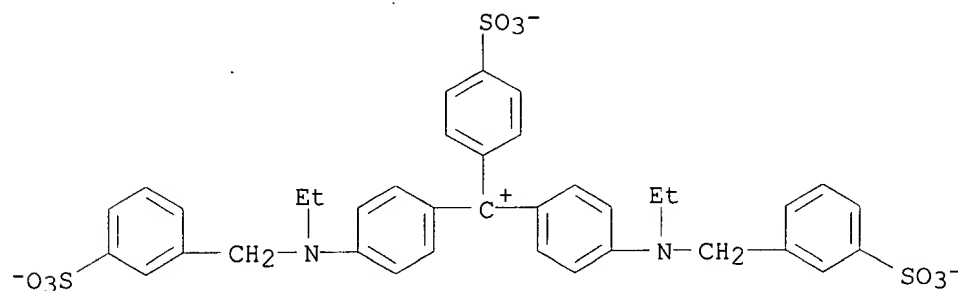
RN 190125-99-6 HCA

CN Methylum, bis[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)-, tris(inner salt), compd. with decamethylcyclopentasiloxane block polymer with N-[3-(dimethoxysilyl)propyl]-1,2-ethanediamine and ethene (9CI) (CA INDEX NAME)

CM 1

CRN 68277-96-3

CMF C37 H34 N2 O9 S3



CM 2

CRN 190125-93-0

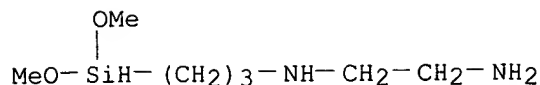
CMF (C10 H30 O5 Si5 . C7 H20 N2 O2 Si . C2 H4)x

CCI PMS

CM 3

CRN 64448-87-9

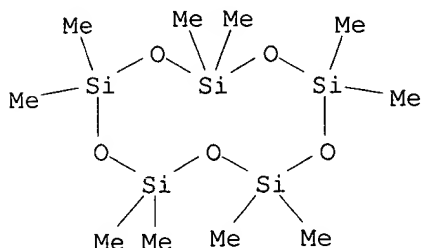
CMF C7 H20 N2 O2 Si



CM 4

CRN 541-02-6

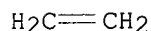
CMF C10 H30 O5 Si5



CM 5

CRN 74-85-1

CMF C2 H4

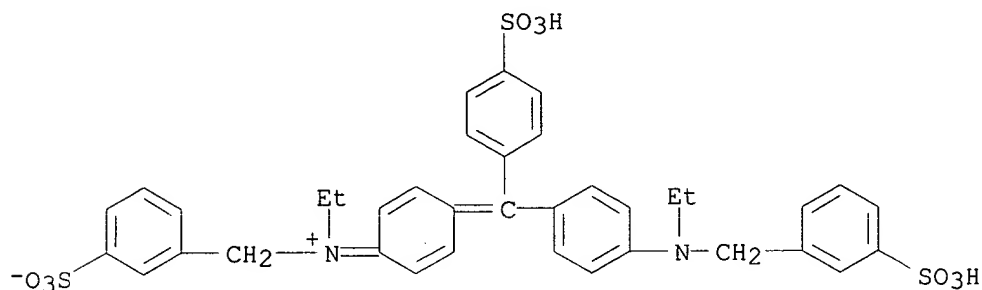


L18 ANSWER 20 OF 201 HCA COPYRIGHT 2003 ACS

124:4038 Anionic triphenylmethane dye solutions for low-dose food irradiation dosimetry. El-Assy, Nasef B.; Yun-Dong, Chen; Walker, M. L.; Al-Sheikhly, M.; McLaughlin, W. L. (Ionizing Radiation Division, Physics Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, 20899, USA). Radiation Physics and Chemistry, 46(4-6, Proceedings of the 9th International Meeting on Radiation Processing, 1994, Pt. 2), 1189-97 (English) 1995. CODEN: RPCHDM. ISSN: 0146-5724. Publisher: Elsevier.

AB The radiolytic bleaching of aryl sulfonic-substituted para-diethyl-amino triphenylmethane dye solns. can be used for dosimetry in the absorbed dose range 10 to 400 Gy. The sulfonic anions provide soly. of these acid dyes in water. Two of these dyes are supplied as stable greenish-blue biol. stains when dissolved in weakly-acidic aq. soln., Light Green SF Yellowish and Fast Green FCF. They have, resp., linear molar absorption coeffs. of  $7.14 \times 10^3$  (at pH 5.4) and  $10.0 \times 10^3$  (at pH 4.2)  $\text{m}^2 \text{mol}^{-1}$ , when measured at the peaks of the primary absorption bands, 630 nm and 622 nm, resp. The bleaching due to irradiation with gamma rays shows a linear function with a pos. slope between the neg. logarithm of the absorbance and the absorbed dose. The effect of pH on the response is studied, as well as the effects of light and temp. on pre- and post-irradiation stability. A mechanism, based mainly on radiolytic oxidation of the protonated phenolic or sulfonated Ph group by  $\cdot\text{OH}$ , with the abstraction of H-atom to water, is postulated for neutral to slightly acidic aerated aq. solns. The influence of alc. on diminishing the neg. yield is demonstrated. Alk. aq. solns. of these dyes (pH 10.2) have a shorter-wavelength absorption max. than acidic aq. solns. The effect of irradiation is to cause acidification (to pH 7) due to displacement of OH groups and degradation of the

dye mol. to lower mol. wt. org. acids.  
IT **5141-20-8**, Light green SF yellowish  
RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(anionic triphenylmethane dye solns. for low-dose food irradiation dosimetry)  
RN 5141-20-8 HCA  
CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L18 ANSWER 30 OF 201 HCA COPYRIGHT 2003 ACS

119:133233 The Influence of chemical structure on the extent and sites of carcinogenesis for 522 rodent carcinogens and 55 different human carcinogen exposures. Ashby, J.; Paton, D. (Cent. Toxicol. Lab., ICI, Macclesfield/Ches., SK10 4TJ, UK). Mutation Research, 286(1), 3-74 (English) 1993. CODEN: MUREAV. ISSN: 0027-5107.

AB L. S. Gold et al. (1991) tabulated the results of rodent bioassays on 522 chems. and analyzed the data. The present study complements those analyses by providing a perspective from the viewpoint of the chem. structure of the carcinogens. The chem. structure of each of the carcinogens is displayed and the Gold database is represented with the test agents as the primary variable. The carcinogens are gathered into 6 chem. classes and each chem. is assessed for structural alerts to DNA reactivity. The database is then analyzed using an integration of the following parameters: bioassay in rat, mouse or both; structural alert status; chem. class; sites and multiplicity of carcinogenesis, and trans-species carcinogenicity. A series of figures is presented that enables rapid acquaintance with what represents the core database of rodent carcinogenicity. The several analyses presented combine in endorsing the reality of two broad classes of rodent carcinogen, presumed DNA-reactive and others (putative genotoxic and non-genotoxic carcinogens, but semantics have been largely avoided). H. M. Vainio et al. (1991) and his colleagues have tabulated 55 situations in which humans have succumbed to chem. induced cancer and have listed the tissues affected. This database of human carcinogens has been analyzed in the present study as done for the rodent carcinogen database, and comparisons made between the two. The predominance of putative genotoxic carcinogens in the human database was confirmed, as was the reality of putative non-genotoxic carcinogenicity in humans. It is concluded that putative genotoxic rodent carcinogenesis can be correlated both with chem. structure and the extent and nature of the induced effect, and that it is of clear relevance to

humans. In contrast, it is concluded that putative non-genotoxic rodent carcinogenesis is more closely related to the test species than to the test chem., and that it is essentially unpredictable in the absence of mechanistic models.

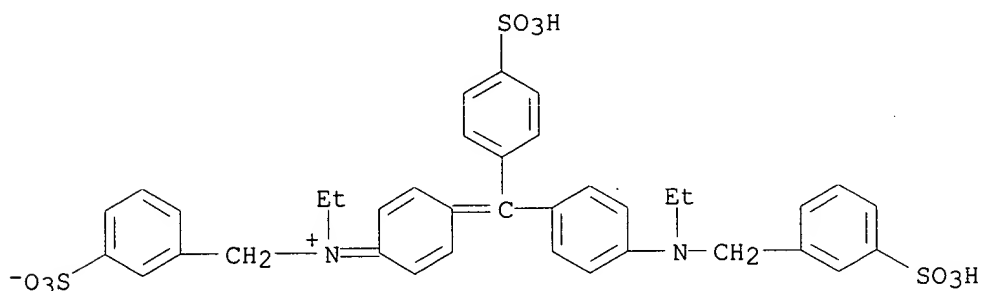
IT 5141-20-8, FD and C Green No. 2

RL: ADV (Adverse effect, including toxicity); PRP (Properties); BIOL (Biological study)

of tissues, in lab. animals, structure role in, human  
(in relation to)

RN 5141-20-8 HCA

Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-  
 CN    sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-  
 cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI)    (CA  
 INDEX NAME)



● 2 Na

L18 ANSWER 40 OF 201 HCA COPYRIGHT 2003 ACS

113:98279 Scale-inhibitor coatings for olefin polymerization reactors and other equipment. Shimizu, Toshihide; Kaneko, Ichiro; Watanabe, Mikio (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02117902 A2 19900502 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-271557 19881027.

AB The title coatings comprise a polycondensate of polyhydric phenols and pigments and/or dyes. Thus, a title coating was prepd. in DMF contg. a pyrogallol-benzaldehyde polycondensate and Solvent Black.

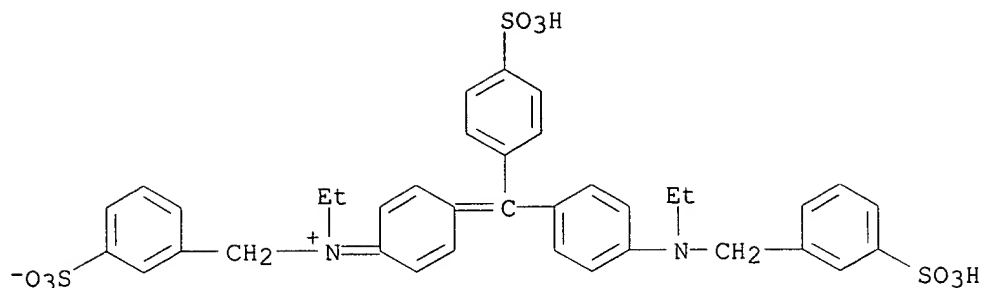
IT 5141-20-8, C.I. Food Green 2

RL: USES (Uses)

(scale-inhibitor coatings contg., for polymn. reactors)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-  
 phenyl)methyl]amino]phenyl](4-sulfo-phenyl)methylene]-2,5-  
 cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA  
 INDEX NAME)



● 2 Na

L18 ANSWER 50 OF 201 HCA COPYRIGHT 2003 ACS

108:33393 Mutagenic activity of 27 dyes and related chemicals in the Salmonella/microsome and mouse lymphoma TK+/- assays. Cameron, T. P.; Hughes, T. J.; Kirby, P. E.; Fung, V. A.; Dunkel, V. C. (Natl. Cancer Inst., Bethesda, MD, 20892, USA). Mutation Research, 189(3), 223-61 (English) 1987. CODEN: MUREAV. ISSN: 0027-5107.

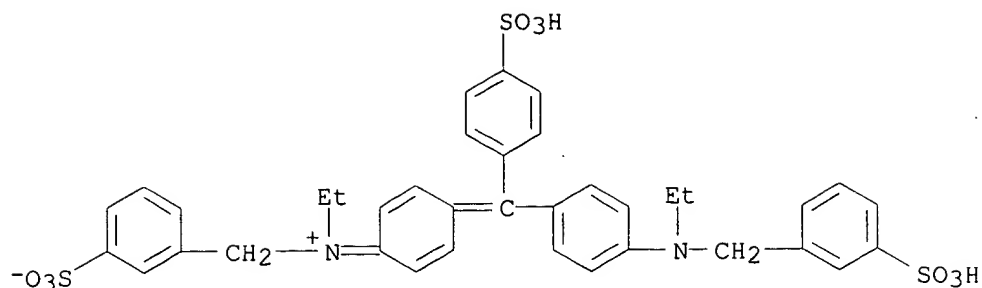
AB A total of 27 dyes and related chems. were tested for mutagenicity in both the S. typhimurium plate-incorporation and FMN-modified assays as well as the mouse lymphoma TK+/- assay. Half of the compds. tested were monoazo dyes (14); the remainder consisted of disazo (3), aminotriphenylmethane derivs. (4), and other misc. (6) color compds. The results obtained are compared with data from dyes of the same batch tested in other labs. in the Salmonella plate-incorporation assay and in both in vitro and in vivo/in vitro UDS assays. Agreement of results from the various assays that could be compared (excluding results that were equivocal or indeterminate) ranged 80-91%. Sufficient data were available to provide an overall index of in vitro activity for 15 chems.; of these, 14 compds. could be compared to and agreed with reports of their carcinogenic potential in the literature.

IT 5141-20-8, Acid green 5

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (mutagenicity of, in Ames and lymphoma TK+/- assays)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl](4-sulfo-phenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L18 ANSWER 60 OF 201 HCA COPYRIGHT 2003 ACS

104:84773 Application of chloride-selective microelectrodes to renal test dyes and other food or cosmetic dyes. Leser, Karl H.; Sigrist, Gerold V. M. (Med. Fak., RWTH, Aachen, D-5100, Fed. Rep. Ger.). Pfluegers Archiv, 406(1), 88-90 (English) 1986. CODEN: PFLABK. ISSN: 0031-6768.

AB The measurement of chloride activity was studied with Cl<sup>-</sup>-sensitive ion-exchanger microelectrodes (ISE) in calibrated test solns. stained with commonly used renal test dyes (e.g., Lissamine green SF) or other food or cosmetic dyes, Renal test dyes impair measurements of Cl<sup>-</sup> activity due to their anionic substitution and were found to increase electrode resistance. Cationic food dyes did not interfere with the Cl<sup>-</sup> reading of ISE, although electrode resistances were increased.

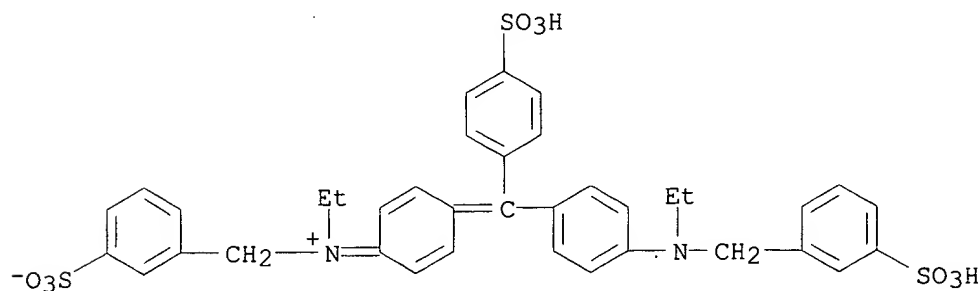
IT 5141-20-8

RL: ANST (Analytical study)

(interference by, of chloride-selective microelectrode detn. of chloride activity)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl](4-sulfo-phenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)



2 Na

L18 ANSWER 70 OF 201 HCA COPYRIGHT 2003 ACS

101:147168 Voltammetry of dye-sensitized bilayer lipid membranes. Tien, H. Ti; Kutnik, Jan (Dep. Biophys., Michigan State Univ., East Lansing, MI, 48824, USA). Photobiochemistry and Photobiophysics, 7(5-6), 319-29 (English) 1984. CODEN: PHOPDS. ISSN: 0165-8646.

AB The redox behavior of 39 dyes in aq. soln. was investigated by a voltammetric technique by using a modified bilayer lipid membrane (BLM) as the working electrode. The resulting voltammograms can be classified into 5 categories. The relevance of cyclic voltammetry by using modified BLM to membrane research is discussed.

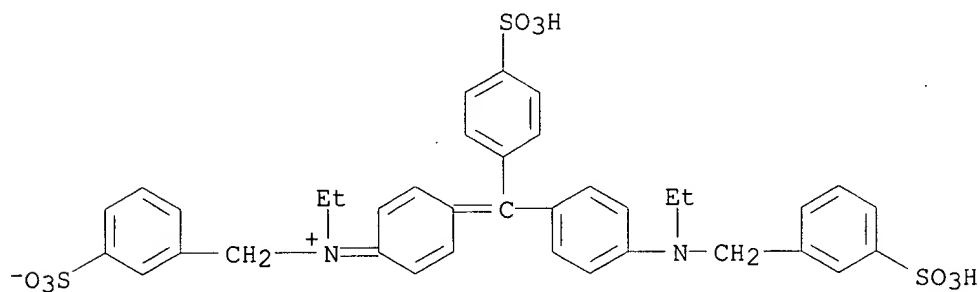
IT 5141-20-8

RL: ANST (Analytical study)

(redox behavior of, in aq. soln., voltammetry with modified bilayer lipid membrane as working electrode in study of)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)

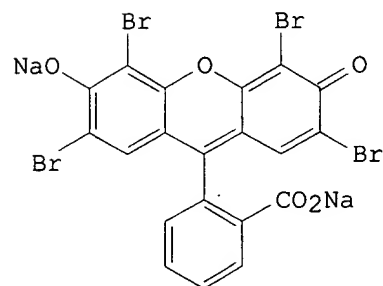


● 2 Na

L18 ANSWER 80 OF 201 HCA COPYRIGHT 2003 ACS

96:194612 Studies on the toxicity of coal-tar dyes III. Reason of acute toxicity to fish caused by coal-tar dyes and their industrial effluents. Tonogai, Yasuhide; Ito, Yoshio; Iwaida, Masahiro; Tati, Masatomo; Ose, Youki; Hori, Mikio (Natl. Inst. Hyg. Sci., Osaka, 540, Japan). Journal of Toxicological Sciences, 5(1), 23-33 (English) 1980. CODEN: JTSCDR. ISSN: 0388-1350.

GI



I



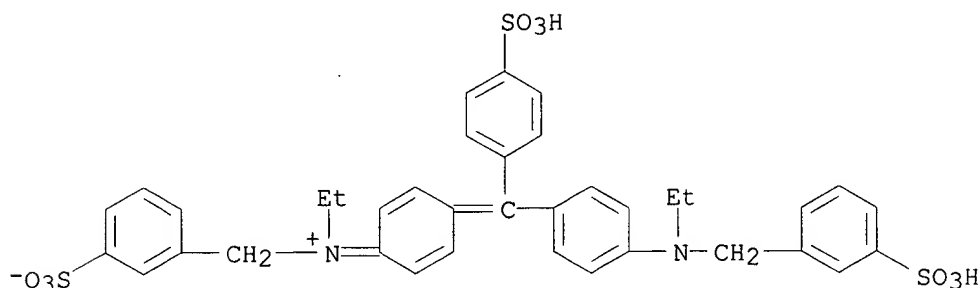
AB The toxicity of several coal tar dyes to fish (*Oryzias latipes*) was correlated to partition coeff. (n-octanol/water); for instance martius yellow [605-69-6] had a partition coeff. of 2.50 and its tolerance limit (TL) was <1 mg/L whereas naphthol yellow S [846-70-8] had 0.00 partition coeff. and a TL >1000 mg/L. Upon irradiation the xanthene dyes eosine (I) [17372-87-1], erythrosine [16423-68-0], phloxine [6441-77-6], and rose bengal [11121-48-5], released halogens and this increased their toxicity to fish.  $\text{CHCl}_3$  [67-66-3] was formed from decoloration treatment of the dyes with  $\text{NaOCl}$ .  $\text{CHCl}_3$  and its homologs were acutely toxic to fish.

IT **5141-20-8**

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (toxicity of, to fish, industrial effluent in relation to)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulphophenyl)methyl]amino]phenyl](4-sulphophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)

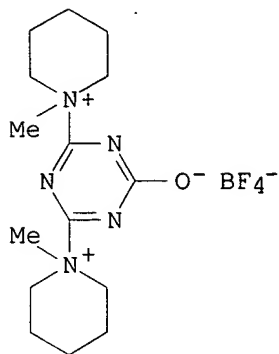
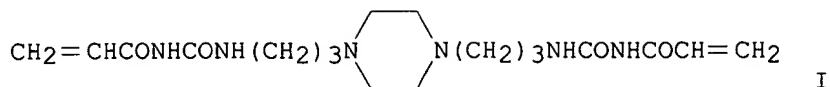


● 2 Na

L18 ANSWER 90 OF 201 HCA COPYRIGHT 2003 ACS

92:31961 Photographic silver halide material with at least one color-containing silver halide-free layer. Tschopp, Paul (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2855428 19790705, 35 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1978-2855428 19781221.

GI



II

AB Dye-contg. antihalation or filter layers for photog. materials contain .gtoreq.1 water-sol. acid dye, a crosslinkable, water-sol. colloidal binder, a water-insol. polymer, and a hardening agent contg. .gtoreq.1 tertiary N atom. The use of the tertiary N atom-contg. hardener eliminates the necessity of a polymeric mordant and the resulting problems involved therewith. Thus, a soln. contg. 3.5 mL of an aq. 6% alkali-processed gelatin (isoelec. point of 4.8), 0.1 mL of an 8% aq. soln. of saponin, 0.17-0.33 mL of a 30% aq. soln. of poly(Me methacrylate), 4 mL deionized water, 0.5 mL of a 1% aq. soln. of 1-(2-choro-5-sulfophenyl)-3-methyl-4-(p-dimethylaminobenzylidene)pyrazolin-5-one, and 1.2 mL of a 0.025M aq. soln. of I. After adjustment of the pH to 5.0 .+- .0.1 with HOAc, the soln. was coated on a support, dried, and then immersed 30 min in deionized water of 30.degree. to show a d. decrease of 45% vs. 98% for a control using II as the hardener.

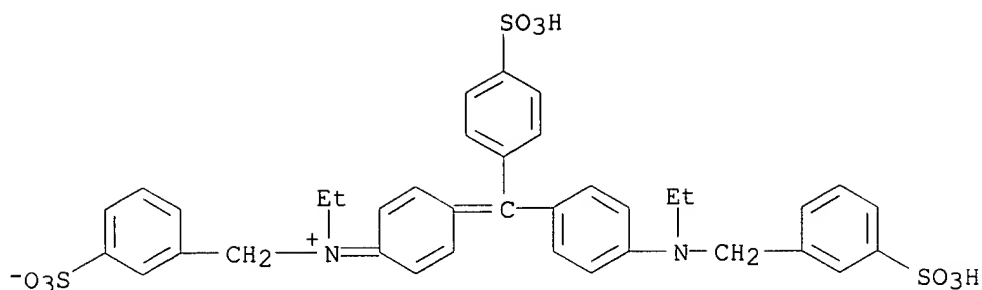
IT **5141-20-8**

RL: USES (Uses)

(photog. antihalation and filter layers contg. crosslinkable colloidal binder, tertiary nitrogen-group-contg. hardener, and)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L18 ANSWER 100 OF 201 HCA COPYRIGHT 2003 ACS

87:125320 Electrophoretic and electrophotographic color recording and color copying process. Bosenick, Rolf; Meyer, Reinhold; Bauer, Hans Georg (Renker G.m.b.H., Dueren, Fed. Rep. Ger.). Bundesminist. Forsch. Technol., Forschungsber., Technol. Forsch. Entwickl., BMFT-FB T 76-42, 155 pp. (German) 1976. CODEN: BFTEAJ.

AB Latent images of 2 or 3 different amts. of surface potentials are produced on electrog. and electrophotog. materials and made visible in functional colors by toning in 2 or 3 consecutive liq. toner baths of differently colored pigment suspensions. Special dielec. papers and ZnO layers of special spectral sensitivity have to be developed. The principle of the process is characterized by the function relating remaining surface potential after toning to toning time. This function is detd. by quant. microphotometric measurements of the toners on image areas.

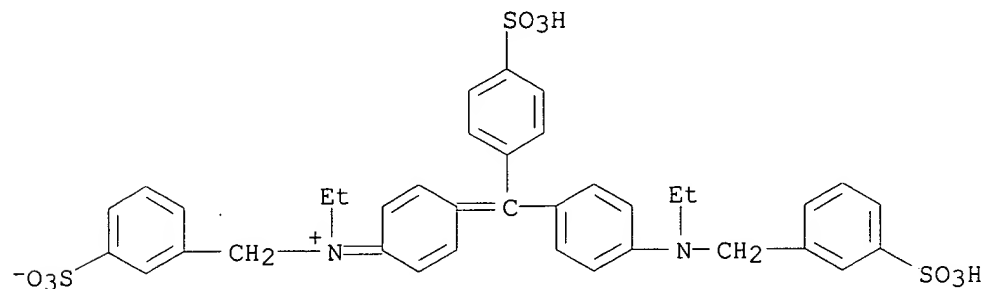
IT 5141-20-8

RL: USES (Uses)

(sensitizer, for electrophotog. paper for color process)

RN 5141-20-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl](4-sulfo-phenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)


$$2 \text{ Na}$$

=> d L22 1-4 cbib abs hitstr

L22 ANSWER 1 OF 4 HCA COPYRIGHT 2003 ACS

127:18189 Modified polysiloxanes with long hydrocarbon end groups and manufacture and recovery thereof. Ito, Koji; Nakamura, Motokazu (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 09100353 A2 19970415 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-191995 19960722. PRIORITY: JP 1995-192874 19950728.

AB The title polymers giving colored waxes with dyes, suitable for water-resistant coloring materials, have the general formula  $R_1R_2R_5SiO(SiR_1R_2O)_p[Si(R_3)(R_6NHR_4)O]_qSiR_1R_2R_5$  ( $R_1-3 = C_1-6$  alkyl,  $C_6-10$  arom. hydrocarbon group with or without  $C_1-6$  alkyl group;  $R_4 = H$ ,  $C_1-6$  alkyl,  $C_1-6$  .omega.-aminoalkyl;  $R_5 = C_{16}-600$  alkyl;  $R_6 = C_3-18$  alkylene;  $p = 0-3000$ ;  $q = 1-3000$ ). Silanol-terminated polyethylene, octamethylcyclotetrasiloxane, and 3-aminopropyldimethoxysilane gave a polyethylene-terminated amino group-contg. siloxane which was treated with tetrabromotetrachlorofluorescein to obtain a salt as a red wax.

IT 190125-99-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(modified polysiloxanes with long hydrocarbon end groups and manuf. and recovery thereof)

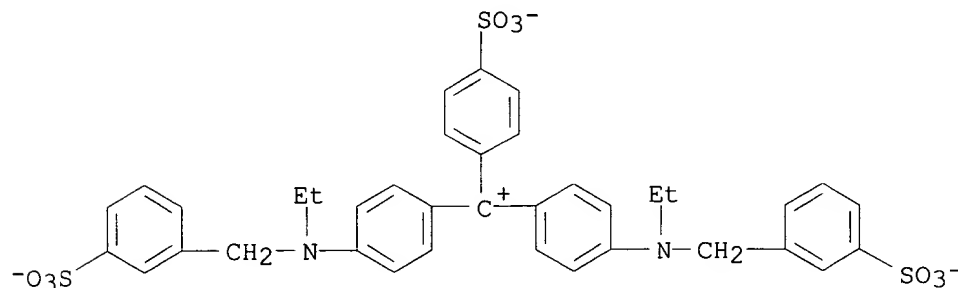
RN 190125-99-6 HCA

CN Methylium, bis[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)-, tris(inner salt), compd. with decamethylcyclopentasiloxane block polymer with N-[3-(dimethoxysilyl)propyl]-1,2-ethanediamine and ethene (9CI) (CA INDEX NAME)

CM 1

CRN 68277-96-3

CMF C37 H34 N2 O9 S3



CM 2

CRN 190125-93-0

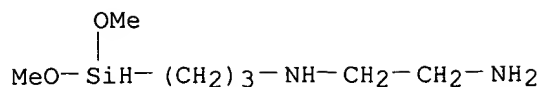
CMF (C10 H30 O5 Si5 . C7 H20 N2 O2 Si . C2 H4)x

CCI PMS

CM 3

CRN 64448-87-9

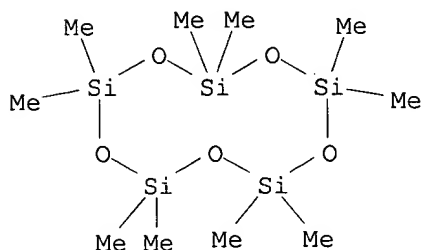
CMF C7 H20 N2 O2 Si



CM 4

CRN 541-02-6

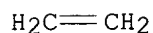
CMF C10 H30 O5 Si5



CM 5

CRN 74-85-1

CMF C2 H4



L22 ANSWER 2 OF 4. HCA COPYRIGHT 2003 ACS

123:316881 Production of Acid Brilliant Blue dyes. Krasavin, Igor A.; Rodionova, Natalya A.; Glushko, Valentina N.; Avramenko, Irina V.; Vysokova, Nina N. (Vsesoyuznyj Nauchno-Issledovatel'skij Institut Khimicheskikh Reaktivov i Osobo Chistkhimicheskikh Veshchestv, USSR). U.S.S.R. SU 1835414 A1 19930823 From: Izobreteniya 1993, (31), 31. (Russian). CODEN: URXXAF. APPLICATION: SU 1990-4846060 19900702.

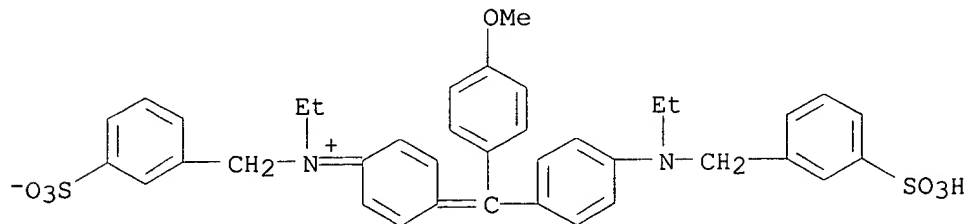
AB Title only translated.

IT **170151-36-7D**, reaction product with p-phenetidine

RL: TEM (Technical or engineered material use); USES (Uses)  
(as Acid Brilliant Blue dye)

RN 170151-36-7 HCA

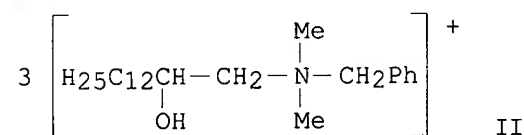
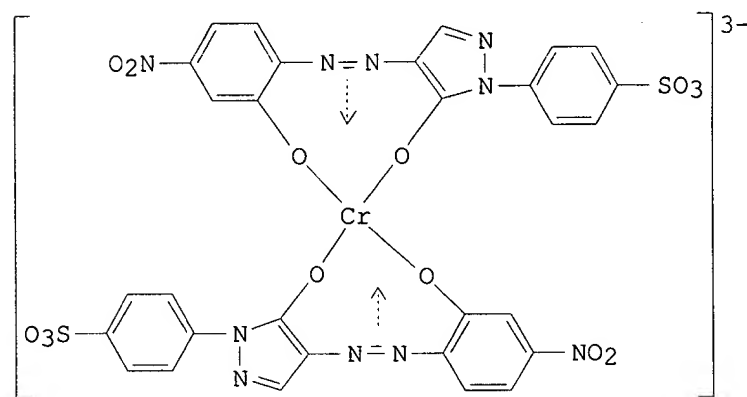
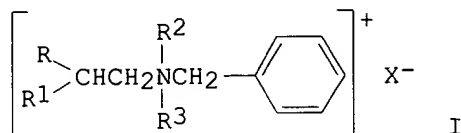
CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl](4-methoxyphenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt (9CI) (CA INDEX NAME)



L22 ANSWER 3 OF 4 HCA COPYRIGHT 2003 ACS

110:137194 Heat-fusible colorants containing dyes and quaternary ammonium salts for dye-transfer sheets in thermal-transfer printing. Kubota, Yoshio; Sugiura, Hiroyuki; Nitta, Tomoyuki (Hodogaya Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63159585 A2 19880702 Showa, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-305305 19861223.

GI



AB Title colorants comprise a dye selected from direct dyes, acid dyes, and SO<sub>3</sub>H-contg. metal complex dyes and a quaternary ammonium salt I (R = C<sub>8</sub>-28 alkyl; R<sub>1</sub> = H, OH; R<sub>2</sub>, R<sub>3</sub> = C<sub>1</sub>-8 alkyl; X<sup>-</sup> = anion). Thus, 20 g Na salt of the dye obtained by coupling diazotized 4-nitro-2-aminophenol with 1-(4-sulfophenyl)-3-methyl-5-pyrazolone and complexing the product with Cr at mol ratio 2:1 was dissolved in 200 parts H<sub>2</sub>O, mixed with 37 parts I (R = C<sub>12</sub>H<sub>25</sub>, R<sub>1</sub> = OH, R<sub>2</sub> = R<sub>3</sub> = Me, X = Cl), and heated at 80-90.degree. for 1 h to give 31 parts II (m.p. 84.degree.). A polyester film coated with a mixt. of II and Vylon 630 as dye-transfer layer produced images with d. gradation on a dye receiving paper in thermal-transfer printing.

IT 118739-21-2P

RL: PREP (Preparation)

(manuf. of, heat-fusible, for dye transfer sheets in thermal-transfer printing)

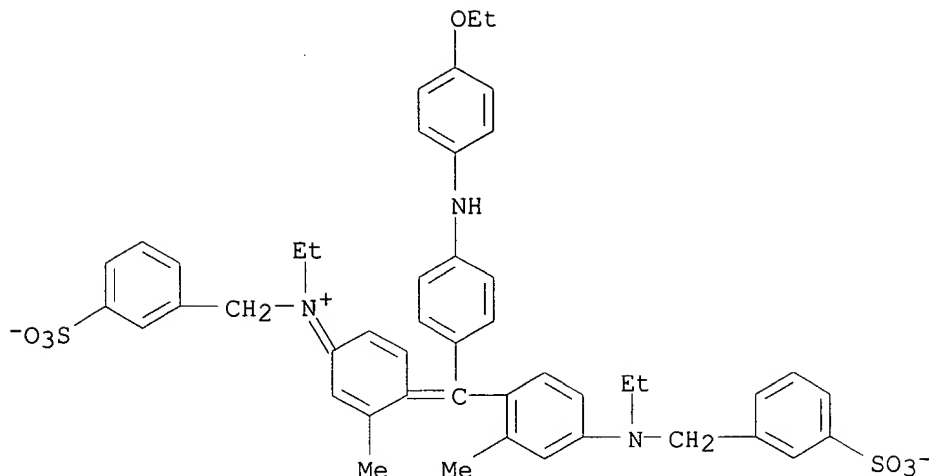
RN 118739-21-2 HCA

CN Benzenemethanaminium, N-(2-hydroxytetradecyl)-N,N-dimethyl-, salt with N-[4-[[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfobenzenemethanaminium inner salt (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 118739-20-1

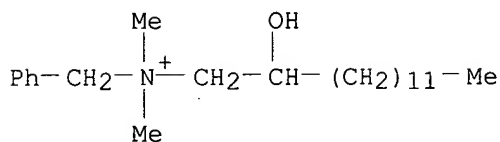
CMF C47 H48 N3 O7 S2



CM 2

CRN 87945-42-4

CMF C23 H42 N O



L22 ANSWER 4 OF 4 HCA COPYRIGHT 2003 ACS

97:111436 Water-thinned marking inks. (Sakura Color Products Corp., Japan).  
 Jpn. Tokkyo Koho JP 57010151 B4 19820225 Showa, 6 pp. (Japanese). CODEN:  
 JAXXAD. APPLICATION: JP 1974-42524 19740415.

AB Water-thinned marking inks contain dyes bearing CO2H or SO3H groups  
 solubilized by amino alcs. or derivs. For example, an ink was prepd. from  
 C.I. Acid Red 87 (acid form) 3, C. I. Acid red 92 (acid form) 1, C. I.  
 Acid Yellow 73 (acid form) 4, HOCH2CH(OH)CH2NH2 4.5, ethylene glycol 25,  
 and water to 100 g. A marking pen filled with the ink could be stored  
 uncapped for 42 days at relative humidity 60% and remain usable, while an  
 ink contg. dyes in the original salt forms dried in 5 days.

IT 82910-91-6

RL: USES (Uses)

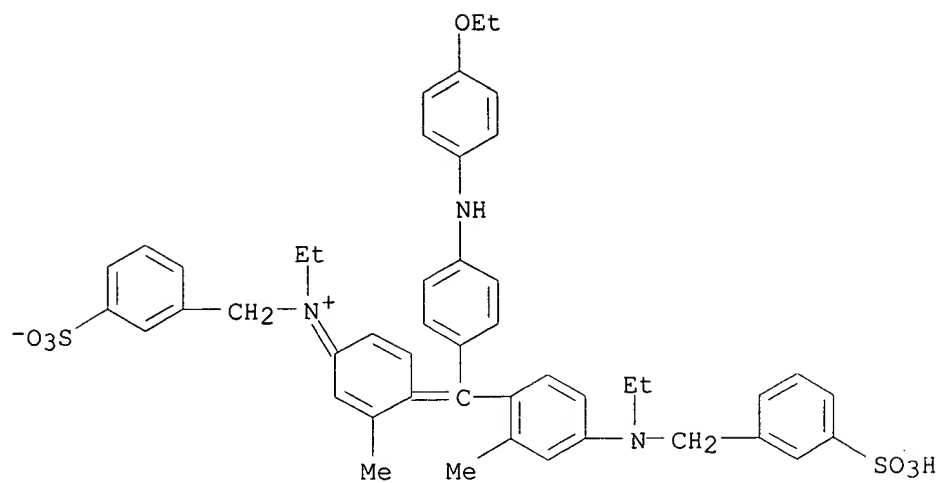
(in inks for marking pens, drying-resistant)

RN 82910-91-6 HCA

CN Benzenemethanaminium, N-[4-[[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-  
 sulfo-phenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-  
 cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, compd. with  
 2,2',2''-nitrilotris[ethanol] (1:1) (9CI) (CA INDEX NAME)

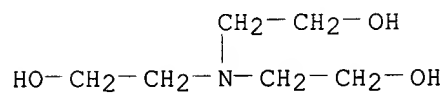
CM 1

CRN 25305-63-9  
CMF C47 H49 N3 O7 S2



CM 2

CRN 102-71-6  
CMF C6 H15 N O3





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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 1 JUN 2003 HIGHEST RN 523977-56-2  
DICTIONARY FILE UPDATES: 1 JUN 2003 HIGHEST RN 523977-56-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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DEL WALK3/L  
DEL WALKPIR/L  
DEL WALKPYR/L

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STR

L2 FILE 'REGISTRY' ENTERED AT 08:59:13 ON 03 JUN 2003  
50 S L1  
L3 7045 S L1 FULL  
SAVE L3 WALK772/A

L4 FILE 'LREGISTRY' ENTERED AT 09:00:28 ON 03 JUN 2003  
STR L3

L5 FILE 'REGISTRY' ENTERED AT 09:03:52 ON 03 JUN 2003  
2 S L4 SSS SAM SUB=L3

L6 FILE 'LREGISTRY' ENTERED AT 09:04:58 ON 03 JUN 2003  
STR L4

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STR L6

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STR L8

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L14 STR L10

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STR L14

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STR L17

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L21 217 S L19 SSS FULL SUB=L3  
SAVE WALK772A/A L21

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2557 S L21

L23 554 S L22 AND 2000-2003/PY

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196 S L21 AND 1-2/NC

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STR L19

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L27 89 S L25 SSS FULL SUB=L3  
SAVE L27 WALK772B/A

L28 128 S L21 NOT L27

L29 FILE 'HCA' ENTERED AT 09:45:01 ON 03 JUN 2003  
1004 S L27

L30 127 S L29 AND 2000-2003/PY

L31 877 S L29 NOT L30

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L32 18692 S 13605/RID

FILE 'HCA' ENTERED AT 09:46:45 ON 03 JUN 2003

L33 25888 S L32

L34 42 S L31 AND L33

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E COPPER PHTHALOCYANINE/CN

L35 1 S E3

FILE 'HCA' ENTERED AT 09:47:52 ON 03 JUN 2003

L36 11111 S L35

L37 13 S L31 AND L36

FILE 'LREGISTRY' ENTERED AT 09:49:26 ON 03 JUN 2003

L38 STR L25

FILE 'REGISTRY' ENTERED AT 09:50:16 ON 03 JUN 2003

L39 0 S L38 SSS SAM SUB=L3

L40 STR L38

L41 0 S L40 SSS SAM SUB=L3

L42 129 S L21 AND 1-2/S

L43 54 S L42 AND 2/N

L44 21 S L43 AND 1-8/X

L45 33 S L43 NOT L44

L46 STR L40

L47 0 S L46 SSS SAM SUB=L3

L48 17 S L46 SSS FULL SUB=L3

SAVE L48 WALK772C/A

FILE 'HCA' ENTERED AT 09:55:09 ON 03 JUN 2003

L49 195 S L48

L50 12 S L49 AND 2001-2003/PY

L51 183 S L49 NOT L50

L52 7 S L51 AND L33

L53 2 S L51 AND L36

L54 5 S L52 NOT L53

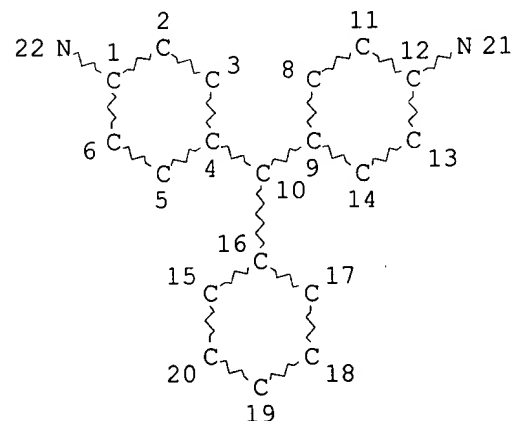
L55 18 S L49 AND 2000-2003/PY

L56 177 S L49 NOT L55

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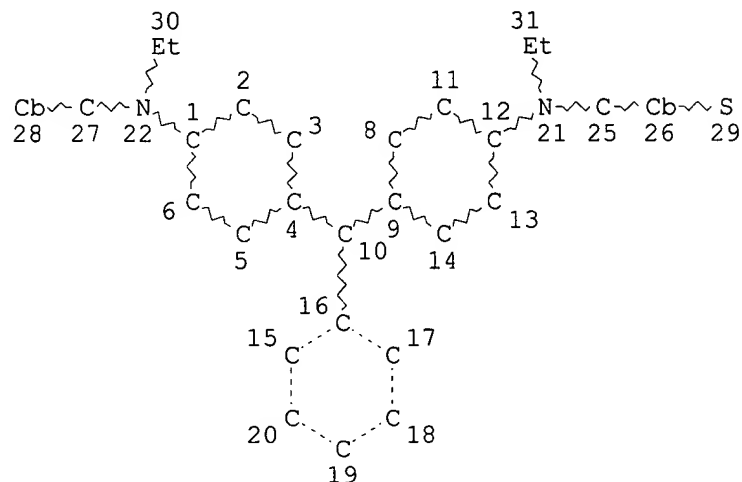
L1 STR



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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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STEREO ATTRIBUTES: NONE  
 L3 7045 SEA FILE=REGISTRY SSS FUL L1  
 L19 STR



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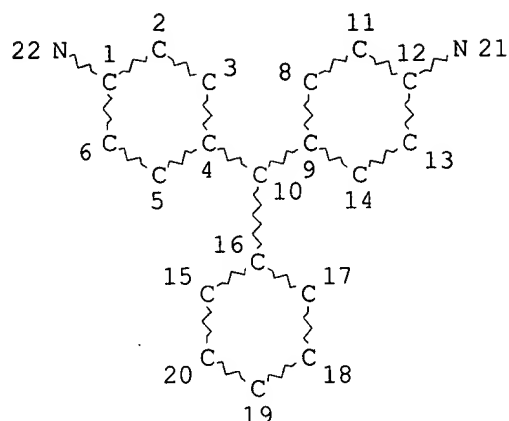
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STEREO ATTRIBUTES: NONE  
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 SEARCH TIME: 00.00.01

217 ANSWERS

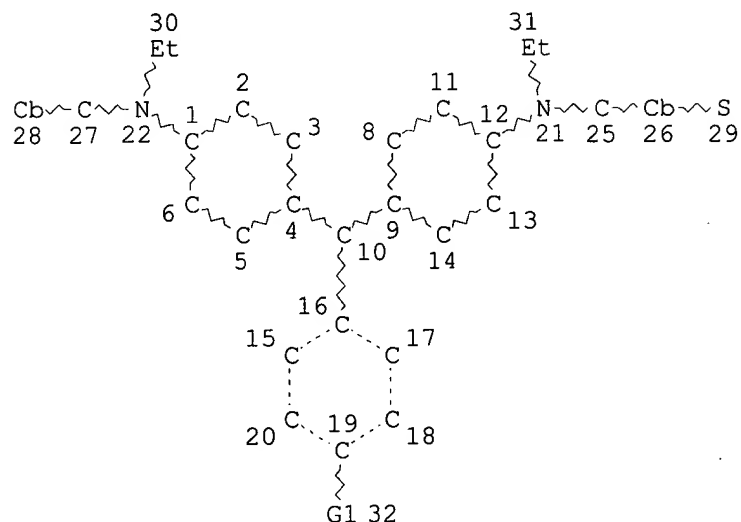
=> d que stat L27  
 L1 STR



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE  
 L3 7045 SEA FILE=REGISTRY SSS FUL L1  
 L25 STR



Ak~O  
 33 @34

VAR G1=S/COOH/AK/34/N  
 NODE ATTRIBUTES:  
 CONNECT IS E2 RC AT 15  
 CONNECT IS E2 RC AT 17  
 CONNECT IS E2 RC AT 18  
 CONNECT IS E2 RC AT 20  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS MCY UNS AT 26  
 GGCAT IS MCY UNS AT 28  
 DEFAULT ECLEVEL IS LIMITED

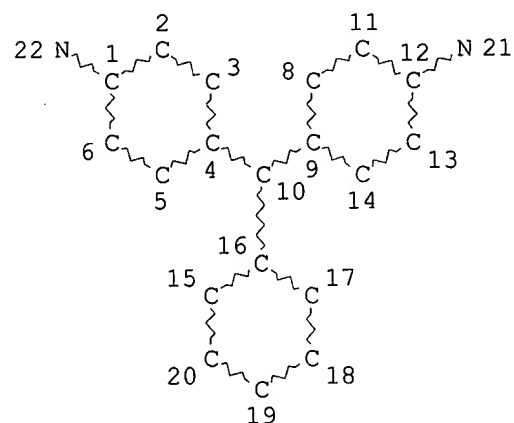
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NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE  
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100.0% PROCESSED 779 ITERATIONS  
SEARCH TIME: 00.00.01

89 ANSWERS

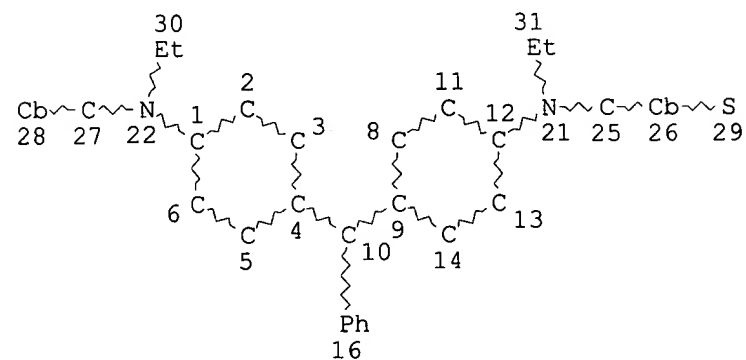
=> d que stat L48  
L1 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE  
L3 7045 SEA FILE=REGISTRY SSS FUL L1  
L46 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY UNS AT 26

GGCAT IS MCY UNS AT 28  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE  
L48 17 SEA FILE=REGISTRY SUB=L3 SSS FUL L46

100.0% PROCESSED 2294 ITERATIONS 17 ANSWERS  
SEARCH TIME: 00.00.01

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FILE 'HCA' ENTERED AT 09:59:24 ON 03 JUN 2003  
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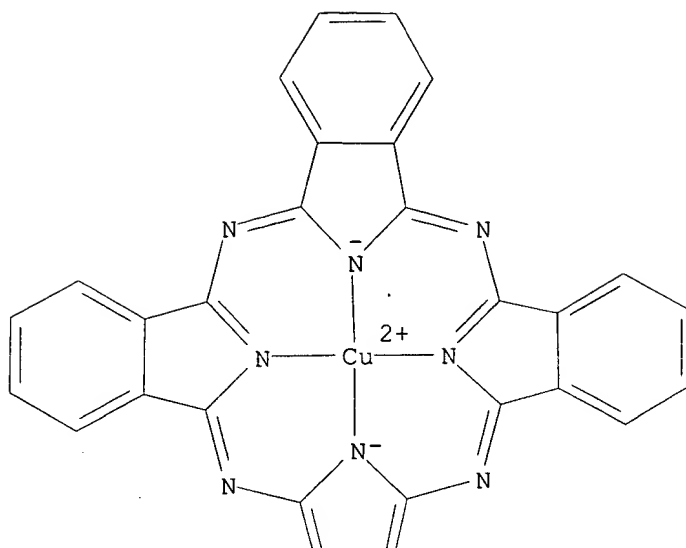
FILE COVERS 1907 - 29 May 2003 VOL 138 ISS 23  
FILE LAST UPDATED: 29 May 2003 (20030529/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

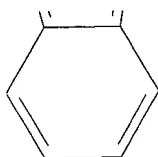
=> d L37 1-13 cbib abs hitstr

L37 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS  
131:6696 Water-thinned ink compositions for ball-point pens. Ohtawa, Kiyoshi; Nakashima, Koji (Tombow Pencil Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11140374 A2 19990525 Heisei, 4 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 1997-322353 19971107.  
AB The title compns., giving pen tips with good lubricant and anticorrosive property, comprise water-sol. org. solvents (e.g., ethylene glycol, diethylene glycol, glycerol), water, coloring materials (e.g., carbon black, Lake Red, Cyanine Blue, Water Black 100L, Water Blue 150, Red 102, Yellow 4), and P deriv. of biphenyl (e.g., 3,4,5,6-dibenzo-1,2-oxaphosphaso-2-oxide).  
IT 147-14-8 6104-58-1, Water Blue 150  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(water-thinned ink compns. for ball-point pens)  
RN 147-14-8 HCA  
CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A



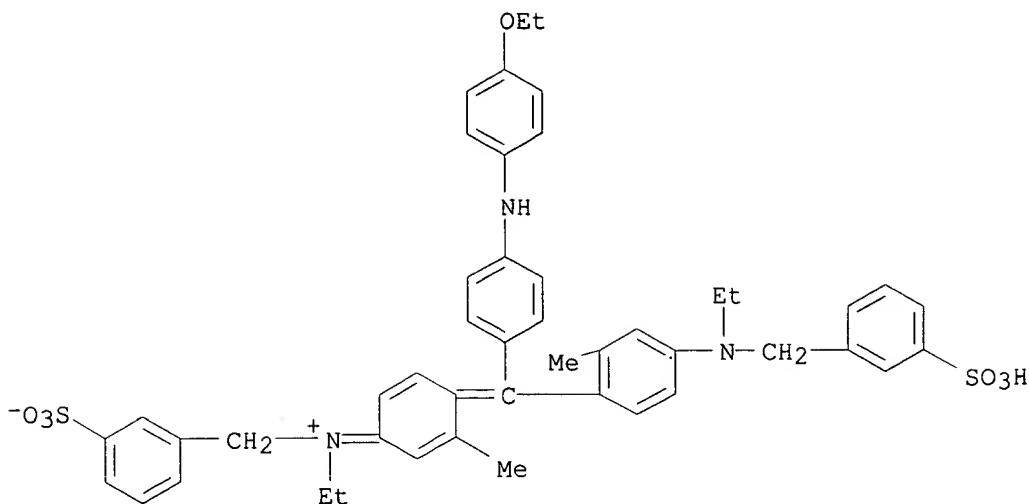
PAGE 2-A



RN 6104-58-1 HCA  
CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



PAGE 1-A



PAGE 2-A

● Na

L37 ANSWER 2 OF 13 HCA COPYRIGHT 2003 ACS

126:67625 Ink for liquid crystal display color filter and its manufacture using intaglio offset printing. Kondo, Yasuhiko; Sasaki, Teruo (Sumitomo Rubber Ind, Japan). Jpn. Kokai Tokkyo Koho JP 08248217 A2 19960927 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-50089 19950309.

AB The ink comprises a resin, a solvent, and a colorant consisting of an acidic dye and an org. pigment, in which the wt. ratio between the acid dye (A) and the org. pigment (B) is in the range of A:B = 5:95-85:15 and the av. grain diam. of the org. pigment is .1 to req. 1 .mu.m. The wt. ratio gives excellent spectral characteristic, light fastness, heat resistance, and solvent resistance. The resin may be a polyester-melamin resin, an epoxy-melamin resin, a polyester-epoxy-melamin resin, or a UV-curable resin. The process uses the ink for an intaglio offset printing to form a transparent color layer.

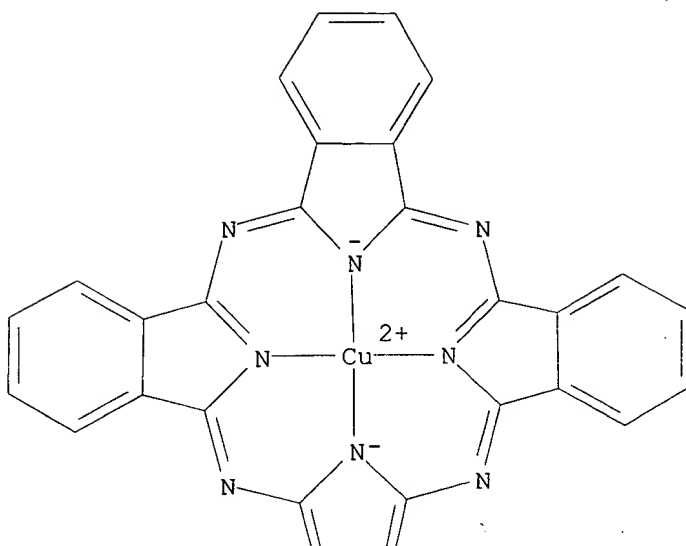
IT 147-14-8 25305-63-9, C.I. Acid Blue 90

RL: TEM (Technical or engineered material use); USES (Uses)  
(ink for liq. crystal display color filter and its manuf. using  
intaglio offset printing)

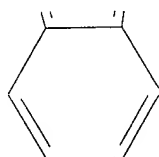
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

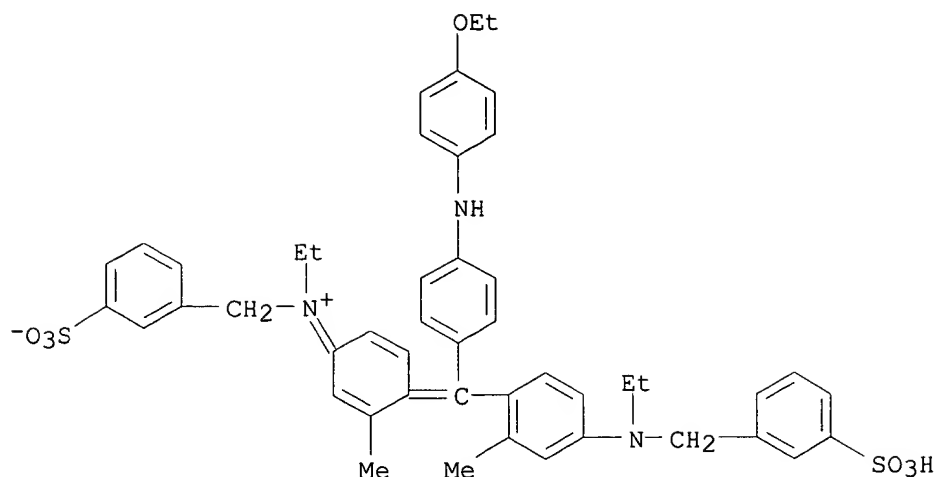
PAGE 1-A



PAGE 2-A



RN 25305-63-9 HCA  
CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt (9CI) (CA INDEX NAME)



L37 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS

118:149443 Purification of organic dyes by recrystallization from hexaalkylphosphoric triamides. Harazono, Toshie; Takahashi, Shichiro (Mitsubishi Kasei Corp., Japan). Jpn. Kokai Tokkyo Koho JP 04239567 A2 19920827 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-20370 19910122.

AB Org. dyes are purified by dissolving in R1R2N(R3R4N)(R5R6N)PO (R1-R6 = C1-3-alkyl), followed by cooling and/or addn. of poor solvents to induce crystn. This method is esp. useful for purifn. of org. dyes used as electrophotog. sensitizers and in semiconductors and solar batteries, which are required to have high purity. A mixt. of 4 g Brilliant Carmine 6BG (I) and 100 mL HMPA was stirred at 90.degree. for 1 h and filtered. The filtrate was treated with MeOH and cooled to room temp. to give 1.2 g I with improved purity.

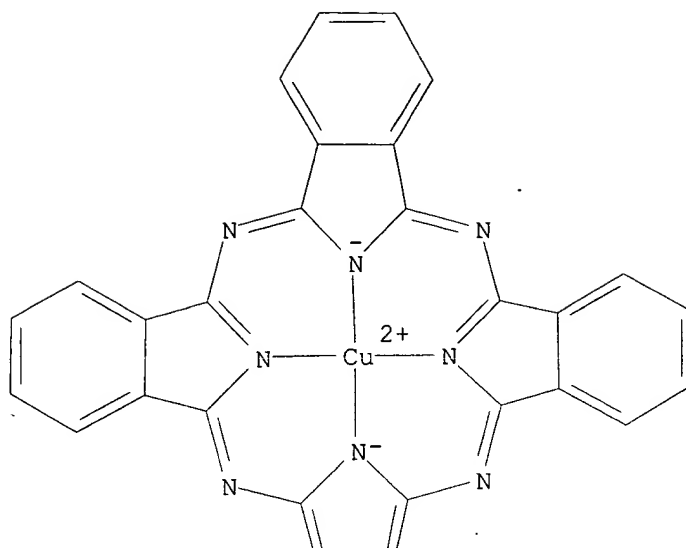
IT 147-14-8P 1694-09-3P

RL: PUR (Purification or recovery); PREP (Preparation)  
(purifn. of, by recrystn. from hexaalkylphosphoric triamides)

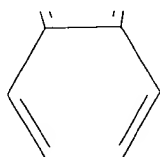
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

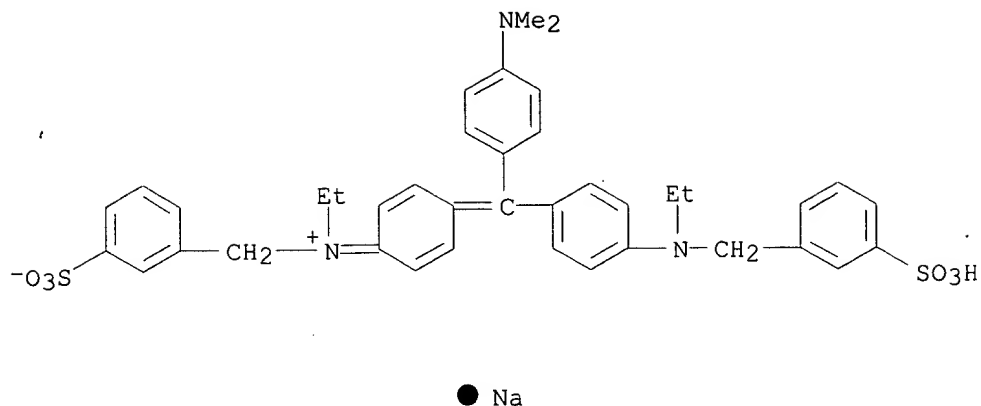
PAGE 1-A



PAGE 2-A



RN 1694-09-3 HCA  
CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



L37 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS

116:179664 A composite layer and a glass composite material and their manufacture. Yoshida, Akihiko; Ikeda, Masaki; Kimura, Kunio; Nishino, Atsushi; Nakazumi, Hiroyuki; Tohge, Noboru; Minami, Tsutomu (Matsushita Electric Industrial Co., Ltd., Japan). Eur. Pat. Appl. EP 452922 A1 19911023, 26 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1991-106214 19910418. PRIORITY: JP 1990-101936 19900418; JP 1990-103479 19900419.

AB A composite layer comprises a substrate, e.g., glass or plastic material, and a colored layer formed on the surface of the substrate. The colored layer comprises a transparent layer, e.g., inorg. gel or glass material, and a coloring agent dispersed within the transparent layer. In the fabrication, the process comprises prepg. a colorant soln. by dissolving or dispersing the coloring agent in an alkoxide or mercaptide soln., applying the colorant soln. to the substrate, drying and/or heating the substrate, and forming a synthetic resin layer by kneading the composite layer having the substrate and the colored layer with a synthetic resin and hardening the synthetic resin. Color filters can be prepd. by this process.

IT **147-14-8 6104-59-2**

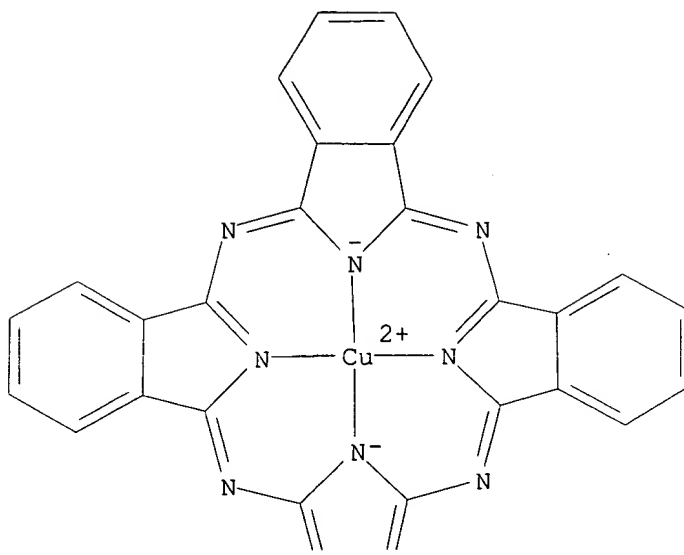
RL: USES (Uses)

(dyes, in manuf. of composite layer, for optical filters)

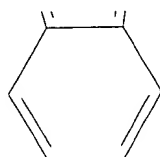
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

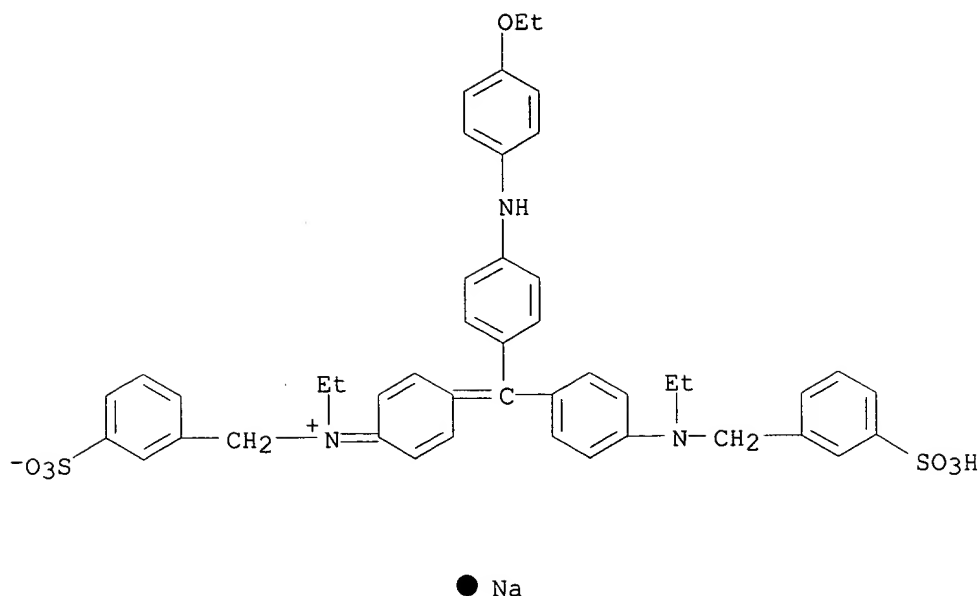
PAGE 1-A



PAGE 2-A



RN 6104-59-2 HCA  
CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



L37 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS

102:173177 The high-order structure and dye adsorption of a porous alunite. Inouye, Katsuya; Koyama, Tamio; Kaneko, Katsumi; Ozeki, Sumio (Fac. Sci., Chiba Univ., Chiba, 260, Japan). Nippon Kagaku Kaishi (2), 156-62 (Japanese) 1985. CODEN: NKAKB8. ISSN: 0369-4577.

AB The high-order structure and internal surface of porous alunite were examd. by adsorption of 10 dyes with different charge, size, and shape. The amt. of neg. charged monovalent dyes (Orange II and Acid Red 88) adsorbed on the alunite is .gtoreq.10 times larger than that of either nonionic mol. (iodine) or pos. charged dyes (Methylene Blue and Crystal Violet). The pos. charge on the alunite surface is suggested by the calcd. residual electrostatic valence and the surface d. from acid-base titrn. The amt. of anionic dyes adsorbed on the alunite decreases with the increase of charge due to the change in effective vol. of dye mol. It is presumed that neg. charged dyes are attracted to the alunite surfaces by H bonding on the specific adsorption sites. The comparison of the effective mol. size with the apparent area occupied by a dye mol. suggests that the divalent dyes, such as Direct Red 39 and Phthalocyanine Blue, adsorb horizontally on the surface, whereas the monovalent dyes adsorb vertically on the walls of silt-like pores. The synthetic porous alunite seems to be composed of thin layer crystal to form silt-like pores of both 15 and 30 .ANG. wide, the latter pore being abundant.

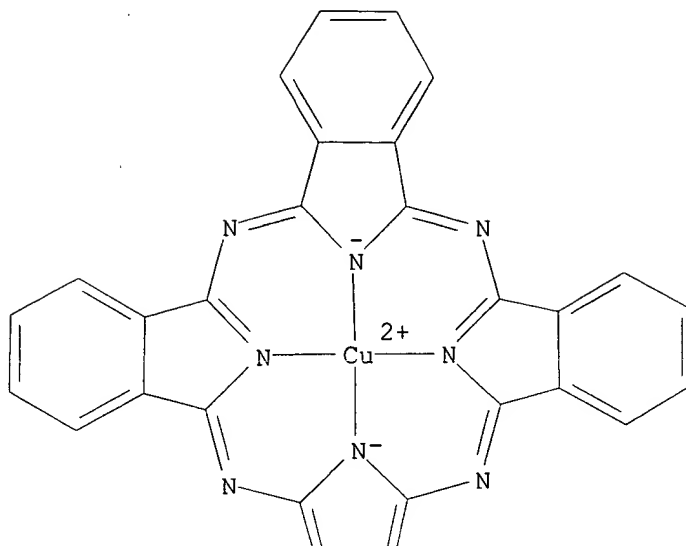
IT 147-14-8 1694-09-3

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(adsorption of, on alunite)

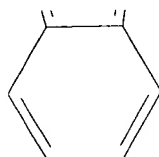
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A



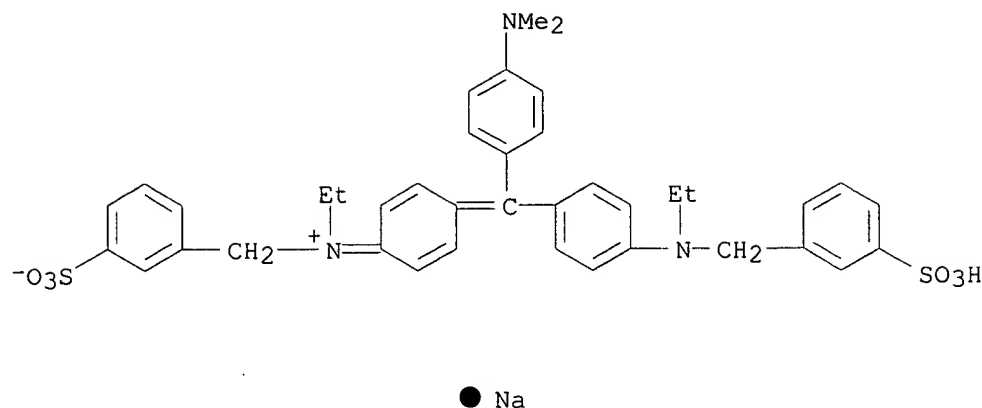
PAGE 2-A



RN 1694-09-3 HCA

CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)





L37 ANSWER 6 OF 13 HCA COPYRIGHT 2003 ACS

102:36664 Composite particles for electrostatic image formation. (Matsushita Electric Industrial Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 59109062 A2 19840623 Showa, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-219401 19821214.

AB Particles for electrostatog. image formation contain several kinds of particles contg. sublimable dyes, have different light transmittance, and are not fixed on the image receptor. This provides good gradation range and low background d. Thus, 2 kinds of particles were prepd. by spray-drying the compns. which contained butadiene-styrene resin binder (from Nippon Zeon Co.) 100, colloidal silica (Snowtex O from Nissan Chem. Ind.) 100, sublimable color former 3,7-bis(diethylamino)-10-trichloroacetylphenoxazine 2, sublimable color former N-(1,2-dimethyl-3-yl)methylidene-2,4-dimethoxyaniline (sic) 2, sublimable dye C.I. Basic Violet 14 2 wt. parts, but 1 of the compns. addnl. contained TiO<sub>2</sub> (diam. 0.02-0.1 .mu.m) 6 wt. parts. Both particles were coated with a compn. contg. CuI 2, poly(vinyl acetate) 0.2, and MeCN 100 wt. parts. The particles not contg. TiO<sub>2</sub> and those contg. TiO<sub>2</sub> were mixed in 3:2 ratio and the mixt. was used for image formation by the following process. A photoreceptor having Al substrate and Se photosensitive layer was charged to +6 kV and the particles were uniformly coated on the surface. After removal of excess particles by vibration it was imagewise exposed and was given vibration, to form the image on photoreceptor surface. It was transferred to clay paper receptor after discharging by irradiation, by application of neg. voltage from the paper side. Heating formed pos. image on the paper, which showed gradation range 1.5, compared with 1.1 which was obtained with the 1st particles only, in image formation.

IT 147-14-8 1694-09-3

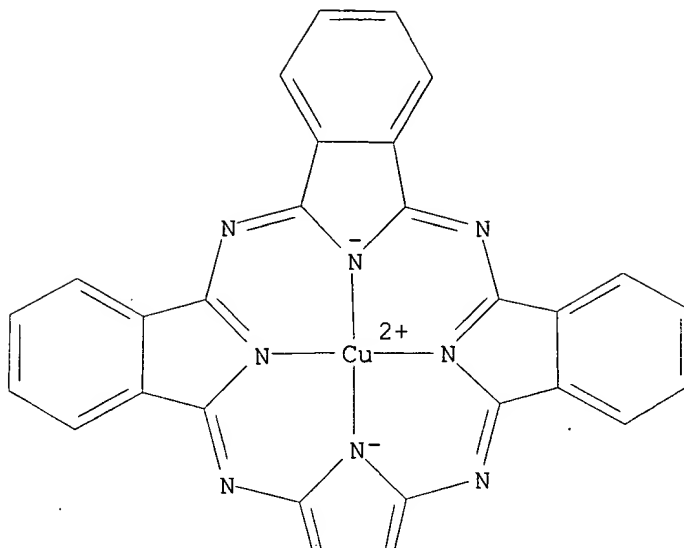
RL: USES (Uses)

(composite particles for electrostatog. image formation contg.)

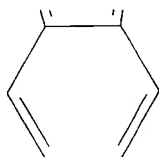
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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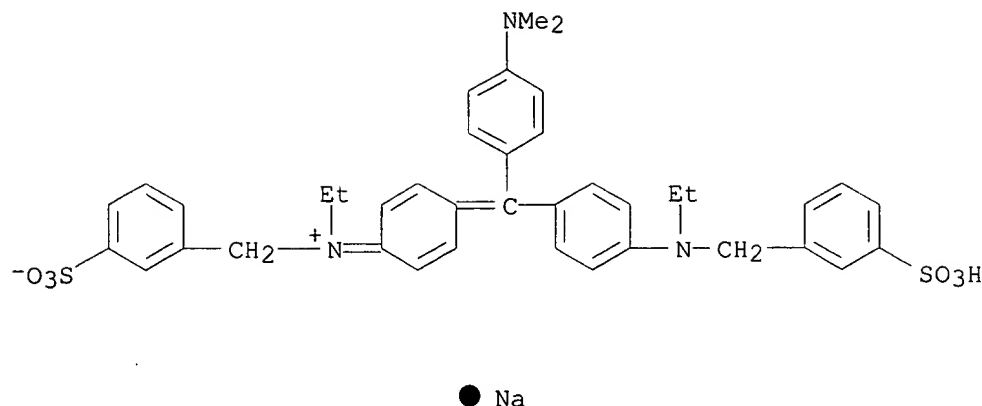


PAGE 2-A



RN 1694-09-3 HCA

CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



L37 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS

101:92989 Aqueous ink composition for ball-point pens. Inoue, Shigeyasu; Yamamoto, Hiroyoshi (Sakura Color Products Corp., Japan). Ger. Offen. DE 3337866 A1 19840426, 31 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1983-3337866 19831018. PRIORITY: JP 1982-185683 19821020; JP 1983-13120 19830128.

AB Aq. ball-point pen inks with good flowability when exposed to air, writing ability, drying ability on substrates, and smearing resistance and low tendency for coloring components to accumulate at the pen tip contain (33-95):(5-67) water-wetting agent mixt. 74.5-99.7, water-sol. or -dispersible dyes or pigments 0.1-15, xanthan gum (I) [11138-66-2] 0.2-0.45, and optionally penetrating org. solvent drying agent 0.5-10 parts/100 parts total compn. Thus, an ink contg. water 61.80, I 0.20, ethylene glycol (II) [107-21-1] wetting agent 21.0, glycerol [56-81-5] wetting agent 10.0, NaOBz 1.0, C.I. Acid Red 87 (III) [17372-87-1] 4.5, C.I. Acid Red 92 (IV) [18472-87-2] 1.0, and C.I. Acid Yellow 23 (V) [1934-21-0] 0.5 part exhibited flowability from ball point pens uncapped for >48 h, flowed at rates of 50-100 or >200-250 mg/100 m from pens traveling at 4 m/min and held at a 75.degree. angle to the paper at an applied pressure of 100 g, allowed pens to write at >15 m/min when held at a 75.degree. angle to the paper at an applied pressure of 100 g, and exhibited no accumulation of color components at the pen tip under normal writing conditions. A control ink contg. water 61.50, I 0.50, II 21.0, glycerol 10.0, NaOBz 1.0, III 4.5, IV 1.0, and V 0.5 part exhibited flowability from ball-point pens uncapped for <24 h, flowed at rates of <50 or >250 mg/100 m from pens traveling at 4 m/min and held at a 75.degree. angle to the paper at an applied pressure of 100 g, allowed pens to write at <10 m/min when held at a 75.degree. angle to the paper with an applied pressure of 100 g, and exhibited accumulation of color components at the pen tip under normal writing conditions.

IT 147-14-8 1694-09-3

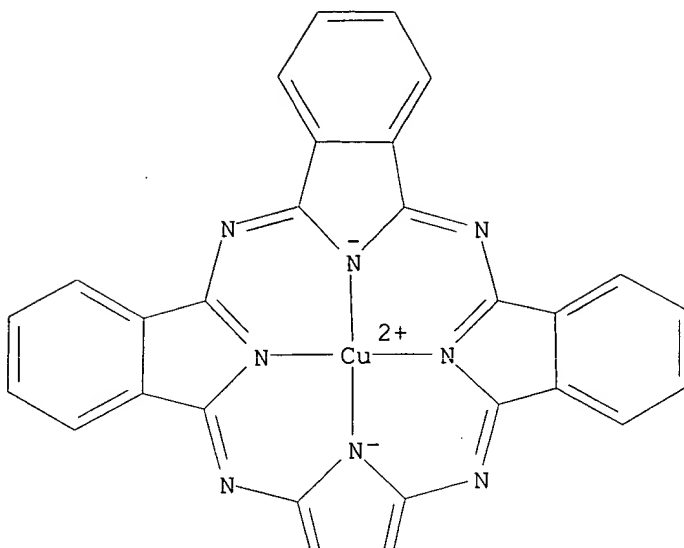
RL: USES (Uses)

(inks contg., water-thinned, with improved writing properties, for ball-point pens)

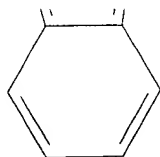
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

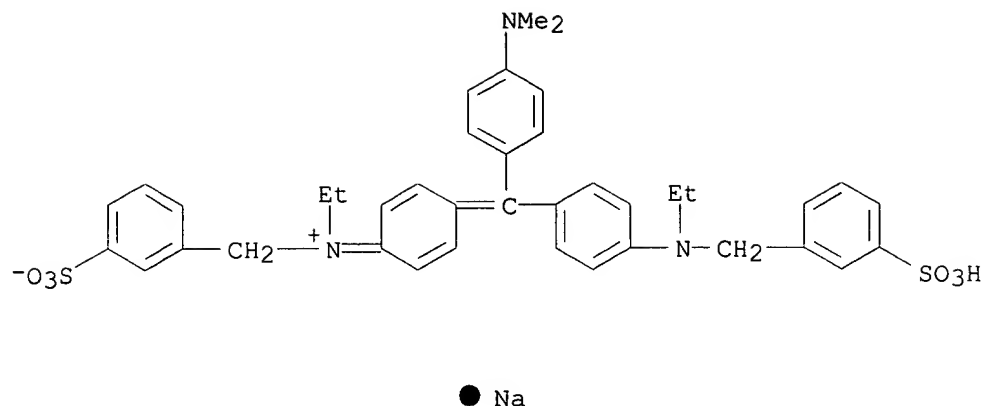
PAGE 1-A



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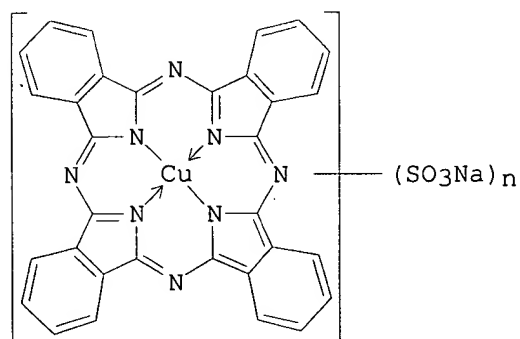


RN 1694-09-3 HCA  
CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



L37 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS  
 101:92978 Inks for wire-dot printers. (Pentel Co., Ltd., Japan). Jpn. Kokai  
 Tokkyo Koho JP 59001580 A2 19840106 Showa, 8 pp. (Japanese). CODEN:  
 JKXXAF. APPLICATION: JP 1982-110985 19820628.

GI



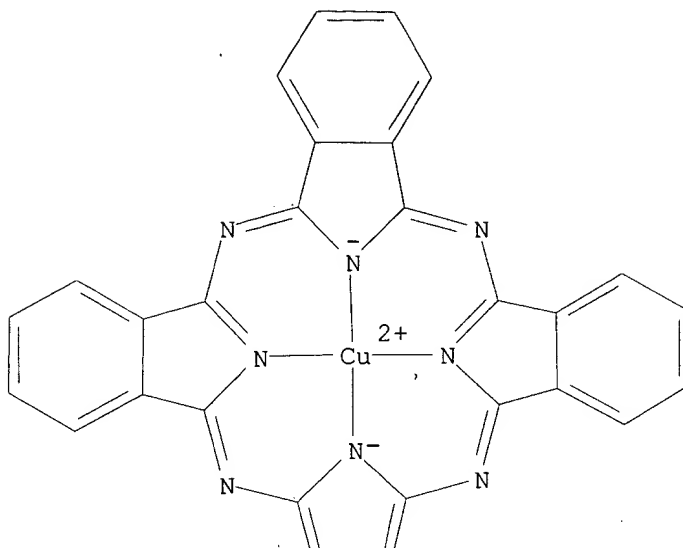
AB The title inks contain water, urea [57-13-6] (and/or its derivs.), water-sol. org. solvent, and water-sol. dye (1-12% based on total wt. ink) composed of phthalocyanine water-sol. dye I ( $n = 2-4$ ) and .gtoreq.1 triphenylmethane acid dye selected from C.I. Acid Blue 1, 7, 9, 15, 22, 83, 90, 93, 100, 103, and 104 and C.I. Acid Green 3, 9 and 16. The magenta inks are excellent in color reproducibility and light stability. Thus, Water Blue 117-L (mixt. of Na disulfonate and Na trisulfonate of phthalocyanine) [91433-26-0] 18, Daiwa Green 70 (C.I. Acid Green 16) [12768-78-4] 0.3, ethylene glycol 15, diethylene glycol 5, urea 7, Na pentachlorophenolate (10% aq. soln.) 0.1, NaOH (25% aq. soln.) 0.1, benzotriazole 0.4, hydroxypropyl cellulose (1% aq. soln.) 15, and water 39.1 parts were mixed and filtered to give a cyan ink (viscosity 5.1 cP, surface tension 46.3 dyne/cm).

IT **147-14-8D**, sulfonated, sodium salts  
 RL: USES (Uses)  
 (inks contg., for wire-dot printers)

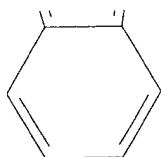
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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IT 6104-58-1 6104-59-2 6505-30-2

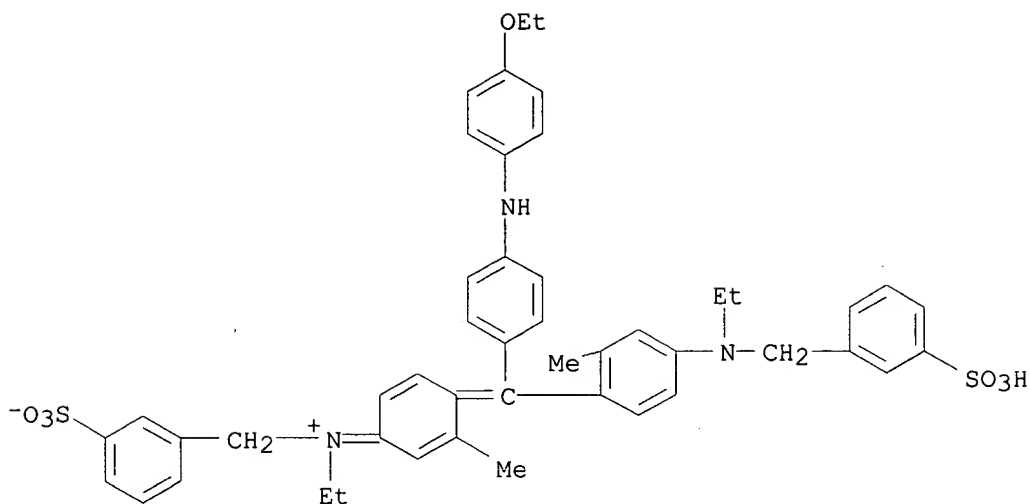
RL: USES (Uses)

(inks, contg. phthalocyanine dyes, aq., for wire-dot printers)

RN 6104-58-1 HCA

CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

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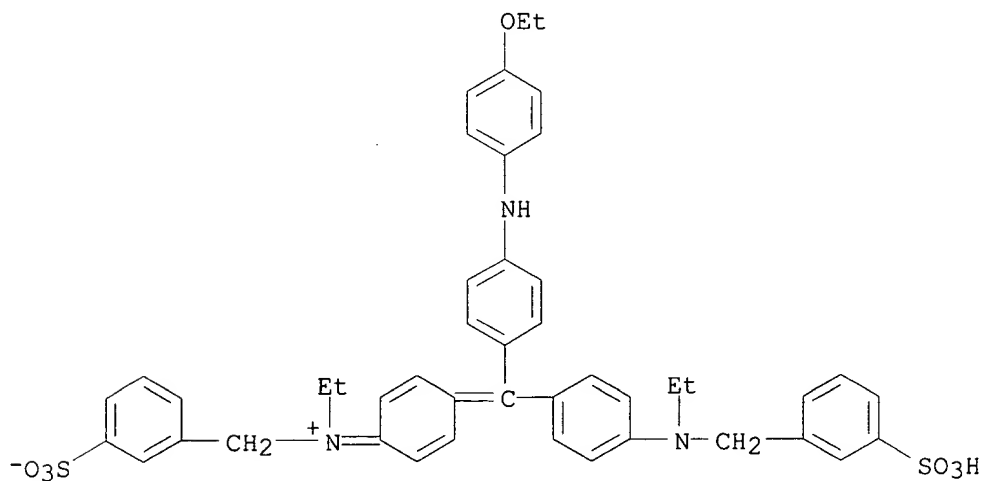


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● Na

RN 6104-59-2 HCA

CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

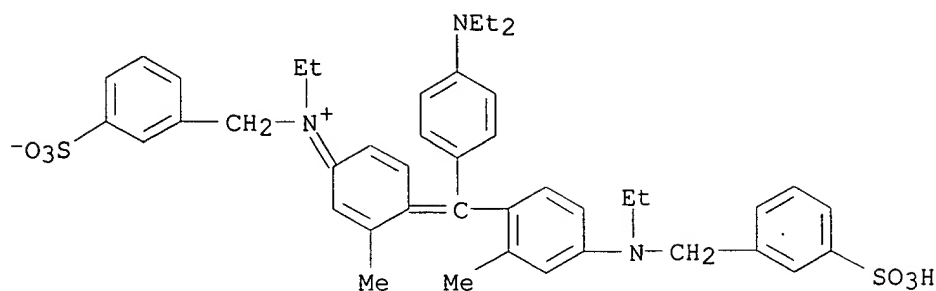


● Na

RN 6505-30-2 HCA

CN Benzenemethanaminium, N-[4-[[4-(diethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI)

(CA INDEX NAME)



● Na

L37 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS

101:14977 Color electrophotographic process. (Matsushita Electric Industrial Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57212463 A2 19821227 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-97869 19810624.

AB A color electrophotog. process is described in which an electrophotog. plate having photoconductor layer areas with different spectral sensitivities is electrostatically coated with colored particles whose optical transmission wavelength coincides with the sensitivity wavelength of the areas, the plate is then imagewise exposed, and subsequently developed by blowing off the particles from the exposed areas. The transparent particles may contain sublimable dyes or their leuco derivs. Thus, Se was vacuum deposited on an Al plate through a mask, the mask was then shifted and Cu phthalocyanine was vacuum deposited thereon to give an electrophotog. plate having Se and Cu phthalocyanine areas. Sep., blue particles composed of a melamine resin, a hardener, and C.I. Acid Violet 49 (Acid Violet 6B from Hodogaya Kagaku Kogyo Co.) were coated with a compn. contg. N-(1,2-dimethyl-3-yl)methylidene-2,4-dimethoxyaniline (sic) and Et cellulose. Red particles composed of a melamine resin, a hardener, methyl orange, and C.I. Acid Red 94 (Aizen Rose Bengal B from Hodogaya Kagaku Kogyo Co.) were coated with a compn. contg. 3,7-bis(diethylamino)-10-trichloroacetylphenoxazine and Et cellulose. The electrophotog. plate was then pos. charged, uniformly exposed to red light, and the blue particles were spread on the plate to electrostatically coat the Se areas; the plate was then recharged and the Cu phthalocyanine areas coated with the red particles. The coated plate was imagewise exposed and shaken to give color images. The plate was then contacted with a clay-coated paper and heated to give a colored copy.

IT 147-14-8

RL: USES (Uses)

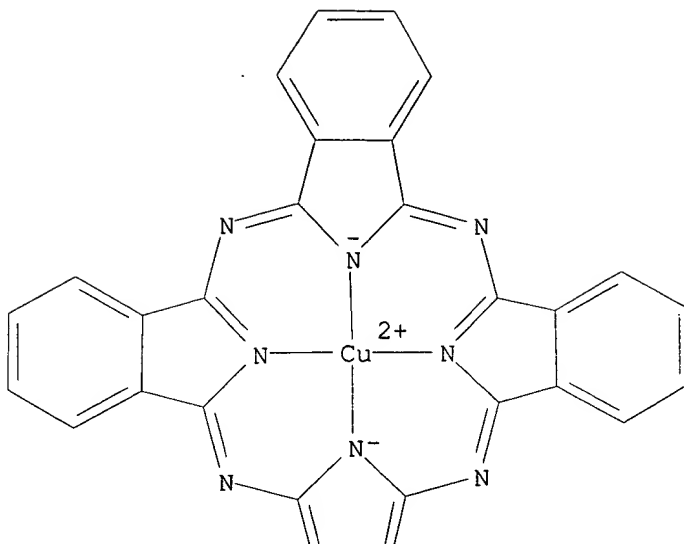
(electrophotog. plates contg., for color electrophotog. process)

RN 147-14-8 HCA

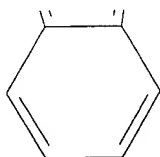
CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)



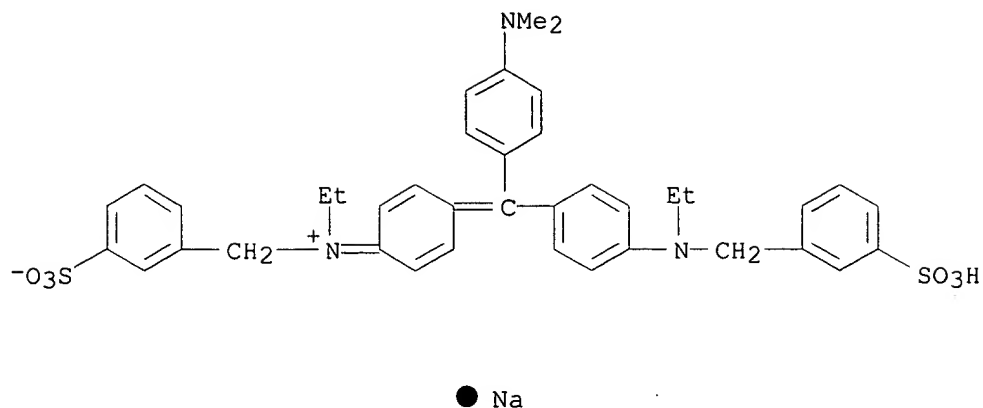
PAGE 1-A



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IT 1694-09-3  
RL: USES (Uses)  
(toner particles contg., optical filter type, for color electrophotog.  
process)  
RN 1694-09-3 HCA  
CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-  
sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-  
ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



L37 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS

95:49453 Temperature indicating compositions of matter. Hof, Craig R.; Ulin, Roy A. (Akzona, Inc., USA). U.S. US 4232552 19801111, 125 pp. Cont.-in-part of U.S. Ser. No. 895,422, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1978-946935 19780928.

AB Stable temp.-indicating compns. for use in different types of disposable thermometers contain a solvent consisting of a single substance or a mixt. of substances and adapted to change from a solid state at a predetd. temp. to a liq. state; and an indicator system consisting of 1 or more substances different from the solvent but sol. in it when it is in the liq. phase, and which changes color visible to the naked eye when the solvent passes from solid to the liq. phase or from the liq. to the solid phase. A temp.-indicating device comprising a heat conducting carrier is also described. The most preferable solvent system is a o-bromonitrobenzene-o-chloronitrobenzene mixt. (I) [69667-56-7] (56.2:43.8-96.0:4.0) which with .apprx.0.05% of an indicator yields an accurate system for measurement of temp. 96-105.degree. F. Thus, pinacyanol iodide [605-91-4] was dissolved in I at 45-60.degree. C, the liq. allowed to cool, and at 38.04.degree. C with artificial nucleation, the liq. changed from a blue color to a solid soln. which was light brown rose.

IT 147-14-8 6104-59-2

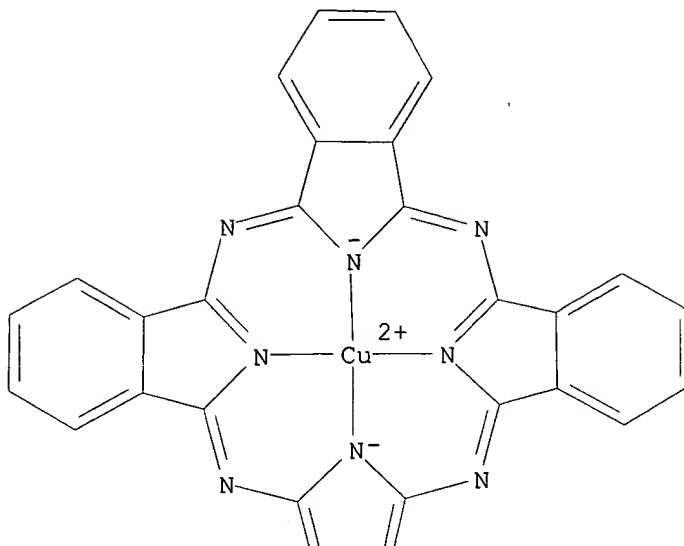
RL: BIOL (Biological study)

(temp. measuring compn. contg., for disposable thermometers)

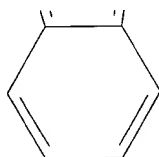
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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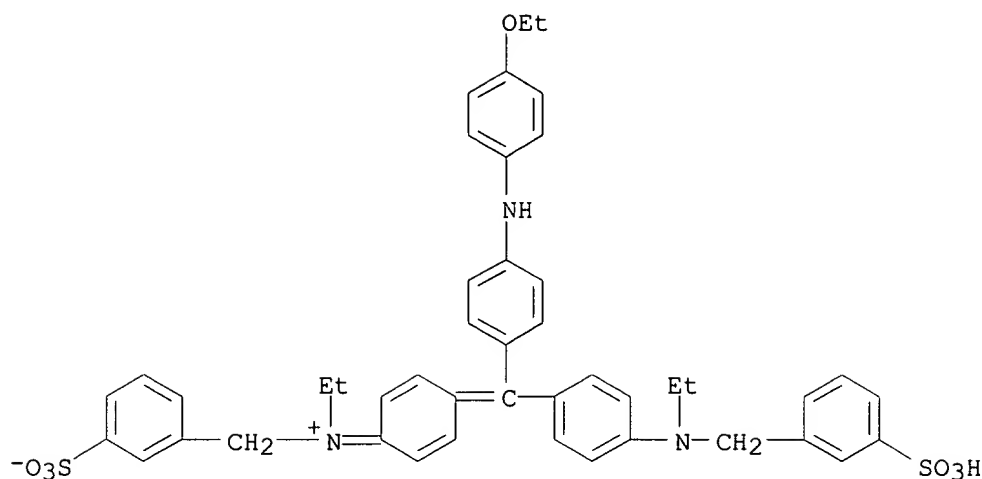


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RN 6104-59-2 HCA

CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



● Na

L37 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS

87:125320 Electrographic and electrophotographic color recording and color copying process. Bosenick, Rolf; Meyer, Reinhold; Bauer, Hans Georg (Renker G.m.b.H., Dueren, Fed. Rep. Ger.). Bundesminist. Forsch. Technol., Forschungsber., Technol. Forsch. Entwickl., BMFT-FB T 76-42, 155 pp. (German) 1976. CODEN: BFTEAJ.

AB Latent images of 2 or 3 different amts. of surface potentials are produced on electrog. and electrophotog. materials and made visible in functional colors by toning in 2 or 3 consecutive liq. toner baths of differently colored pigment suspensions. Special dielec. papers and ZnO layers of special spectral sensitivity have to be developed. The principle of the process is characterized by the function relating remaining surface potential after toning to toning time. This function is detd. by quant. microphotometric measurements of the toners on image areas.

IT **147-14-8 60880-51-5 64333-57-9**

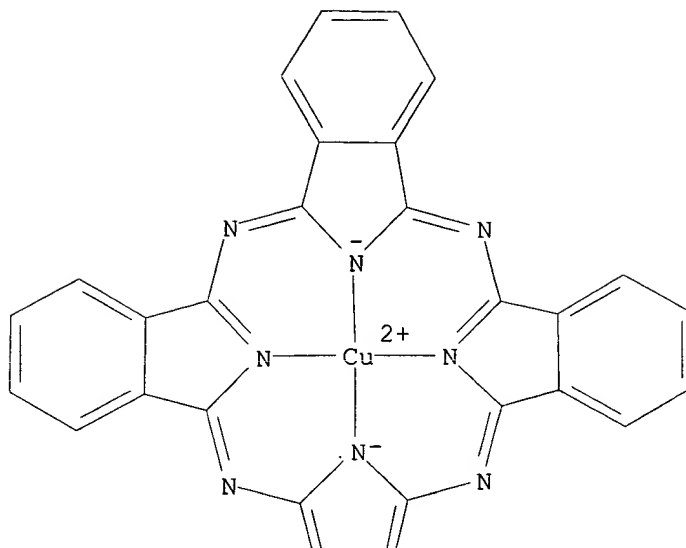
RL: USES (Uses)

(electrophotog. and electrog. toners contg., for color copying process)

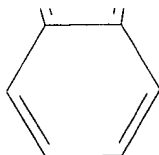
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

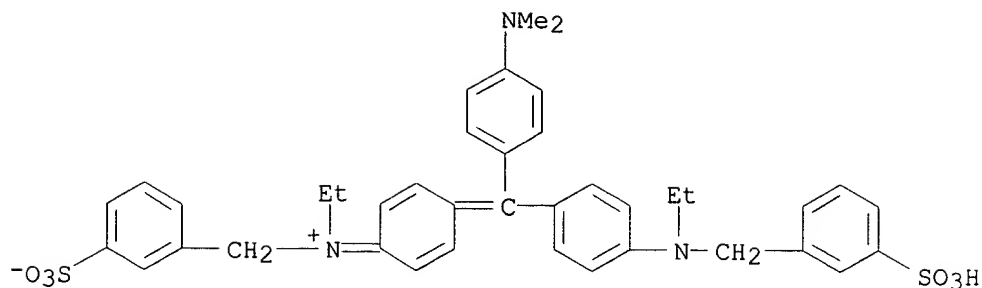
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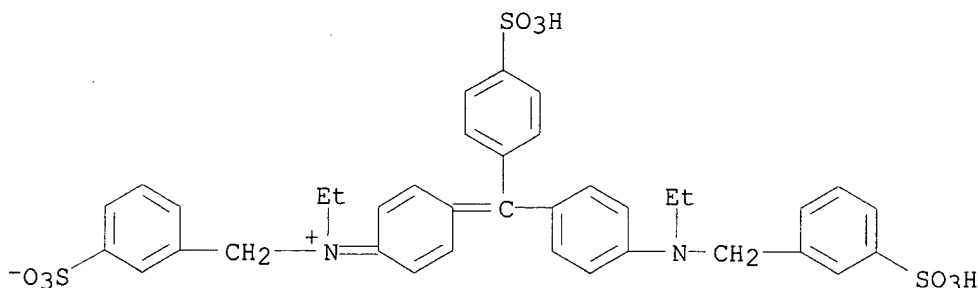


RN 60880-51-5 HCA  
 RN 64333-57-9 HCA  
 IT **1694-09-3 5141-20-8**  
 RL: USES (Uses)  
 (sensitizer, for electrophotog. paper for color process)  
 RN 1694-09-3 HCA  
 CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 5141-20-8 HCA  
 CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA INDEX NAME)



●2 Na

L37 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS

65:69676 Original Reference No. 65:12981f-g Photoelectromotive force in dye layers under asymmetric cross illumination. Vartanyan, A. T.; Meshkova, G. N. Doklady Akademii Nauk SSSR, 169(2), 371-4 (Russian) 1966. CODEN: DANKAS. ISSN: 0002-3264.

AB The photo emf. of 15 dyes (basic, neutral, or acid) was investigated under various atm. (vacuum, air, O, EtOH vapor); among these, erythrosine, Bengal Rose, pinacyanol, Crystal Violet, and Acid violet were investigated more accurately. The effect of the layer depth was studied. All the salt dyes showed a photo emf. in air up to a few hundredths v., but the water-insol. dyes did not. The necessary condition for the appearance of the effect is the presence of solvent vapors governing the electrolytic cond. in the solid dye layers: the effect vanished on drying or under vacuum. The spectral distribution of the photo emf. depended on the layer depth, the photo emf. spectrum being well related to the optical absorption spectrum in the thinner layers. The mechanism of the photoelec. phenomenon was discussed.

IT 147-14-8, Copper, [phthalocyaninato(2-)]- 1694-09-3,

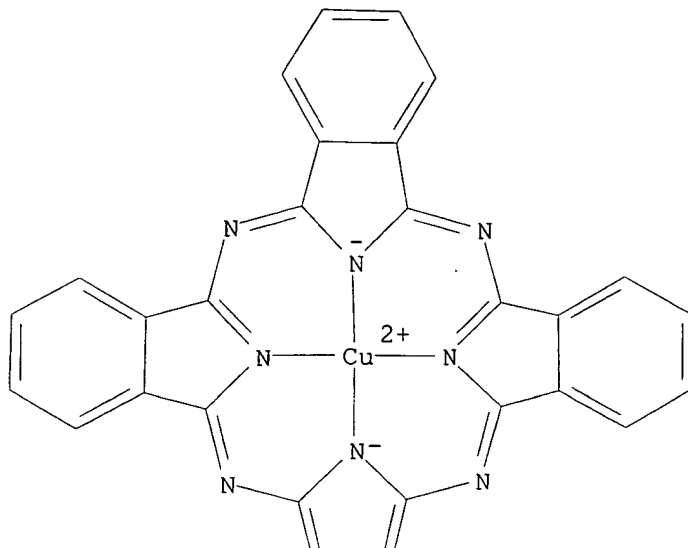
## Acid Violet 6B

(photovoltaic effect in films of, under asymmetric cross illumination)

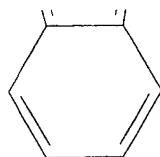
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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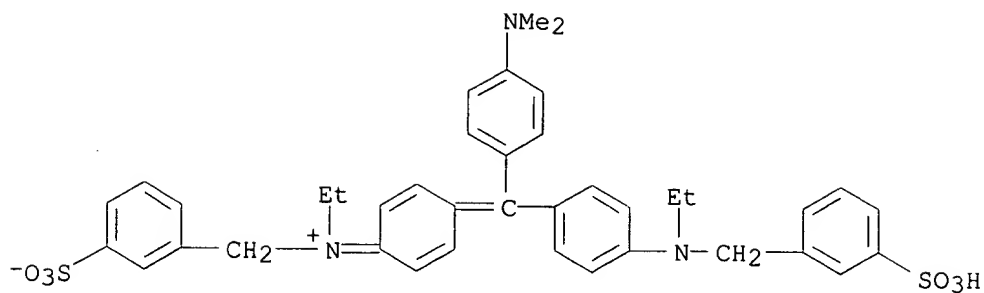


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RN 1694-09-3 HCA

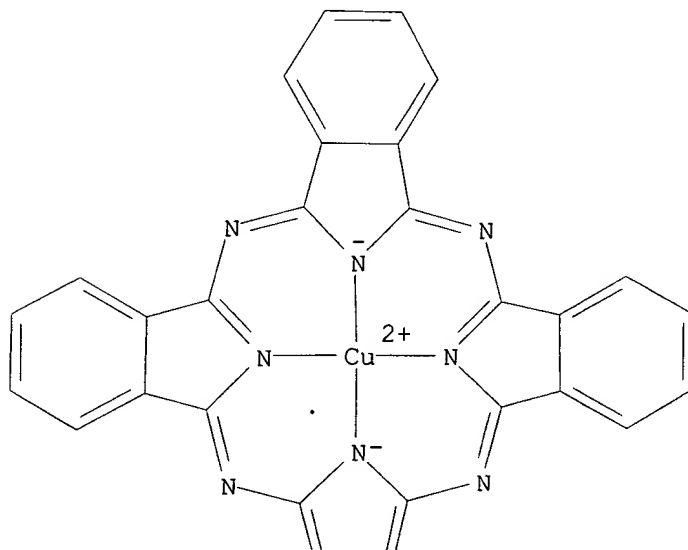
CN Benzenemethanaminium, N-[4-[[4-(dimethylamino)phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

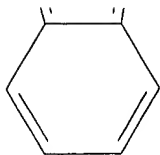
IT 147-14-8, Copper, [phthalocyaninato(2-)]-  
 (sulfur derivs., photovoltaic effect in films of, under asymmetric  
 cross illumination)  
 RN 147-14-8 HCA  
 CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.ka  
 ppa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 2-A



L37 ANSWER 13 OF 13 HCA COPYRIGHT 2003 ACS

64:22937 Original Reference No. 64:4238f-h, 4239a-b Triarylmethane dyes as redox indicators. Brazier, J. N.; Stephen, W. I. (Univ. Birmingham, UK). *Analytica Chimica Acta*, 33(6), 625-38 (English) 1965. CODEN: ACACAM. ISSN: 0003-2670.

AB The properties were studied of 53 triarylmethane dyes (5 previously recommended), as indicators in conventional redox titrns. One drop of an aq. 0.1% dye soln. was added to 1 ml. of F H<sub>2</sub>SO<sub>4</sub> contg. a few drops of 0.01N Fe(NH<sub>4</sub>)<sub>2</sub>(SO<sub>4</sub>)<sub>2</sub>; the color was noted and 0.01N Ce(SO<sub>4</sub>)<sub>2</sub> was added dropwise until present in excess. Any color change was noted and the change was reversed by addn. of the 0.01N Fe<sup>2+</sup>-F H<sub>2</sub>SO<sub>4</sub>. The dyes were tested in titrns. of 10 ml. of 0.01N Fe<sup>2+</sup> in F H<sub>2</sub>SO<sub>4</sub> vs. 0.01N Ce(SO<sub>4</sub>)<sub>2</sub> in F H<sub>2</sub>SO<sub>4</sub>; .apprx. 0.5 ml. from the end point, 0.5 ml. of an aq. 0.1% dye soln. and 0.5 ml. of 2F H<sub>2</sub>SO<sub>4</sub> were added. The titrn. was continued to the color change of the dye; the reverse titrns. were also performed. Potentiometric titrns. were made for comparison. C.I. 42050, 42051, 42090, 42135, 42571, 42595, 42705, 42735, 44025, 44040, and Basic Blue 23 were satisfactory as indicators for the Fe<sup>2+</sup>+Ce<sup>4+</sup> titrn. in F H<sub>2</sub>SO<sub>4</sub>; or in F HClO<sub>4</sub> with 0.01 and 0.001N Ce(ClO<sub>4</sub>)<sub>4</sub> (Smith and Getz, CA 34, 46881) and Fe(ClO<sub>4</sub>)<sub>2</sub>; however, the ferroin indicators are superior. Attempts to measure the formal redox potentials of the indicators resulted in the irreversible oxidn. of the dye by 0.01N Ce(SO<sub>4</sub>)<sub>2</sub>, without obtaining a stable emf. value. The transition potentials (the emf. at which the color transition occurred) of the indicators in titrns., and reverse titrns., of 0.001N Fe<sup>2+</sup> vs. 0.001N Ce<sup>4+</sup> in F H<sub>2</sub>SO<sub>4</sub>, and in F HClO<sub>4</sub>, are 945-1005 to 1125-65; and 1060-1125 to 1145-85 mv., resp. The emf. breaks in F H<sub>2</sub>SO<sub>4</sub> or F HClO<sub>4</sub> are: Fe<sup>3+</sup>/Ce<sup>4+</sup> 820-1220, 900-1450; and Ce<sup>4+</sup>/Fe<sup>2+</sup> 1260-820, 1500-900 mv., resp. None of the dyes was satisfactory as indicator for titrns. with Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup>, OCl<sup>-</sup>, or chloramine-T. Regina Purple (C.I. 42515) (I) is recommended as the indicator for the titrn. of As<sup>3+</sup> with IO<sub>3</sub><sup>-</sup> in 5F HCl. I (0.5 ml. of aq. 0.1%) was added when the iodine color faded; the green which appeared immediately before the end point gave good warning of the vivid change to the purple color. The color change of I is irreversible. I (and also Basic Blue 15, C.I. 44085) was used as indicator in titrns. with IO<sub>3</sub><sup>-</sup> of I<sup>-</sup>, NH<sub>2</sub>OH, As<sup>3+</sup>, Sb<sup>3+</sup>, and Sn<sup>2+</sup>. I is a mixt., the properties of which remained const. after recrystn. from H<sub>2</sub>O and EtOH. In BrO<sub>3</sub><sup>-</sup> titrns., I or C.I. 44085 had to be added close to the end point to avoid premature oxidn. They were no better than the accepted indicators. In the iodine-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> titrn. at pH 4 and 7, the color change of Basic Blue 11 (C.I. 44040) (II) from yellow-green to ultramarine, is as sharp and sensitive (2.5 .times. 10<sup>-5</sup>N I in KI) as that of com. starch-urea. II is superior to malachite green as indicator for iodometry in aq.-alc. solns. or in high salt concns. The indicator properties were examd. analogously of phthalocyanine dyes C.I. 74140, 74160, 74180, 74200, 74240, 74250, 76260, and 74350; the results were neg. C.I. 74140 had a transition potential of 935-90 mv. in F H<sub>2</sub>SO<sub>4</sub>, and 985-1035 mv. in F HClO<sub>4</sub>. 36 references.

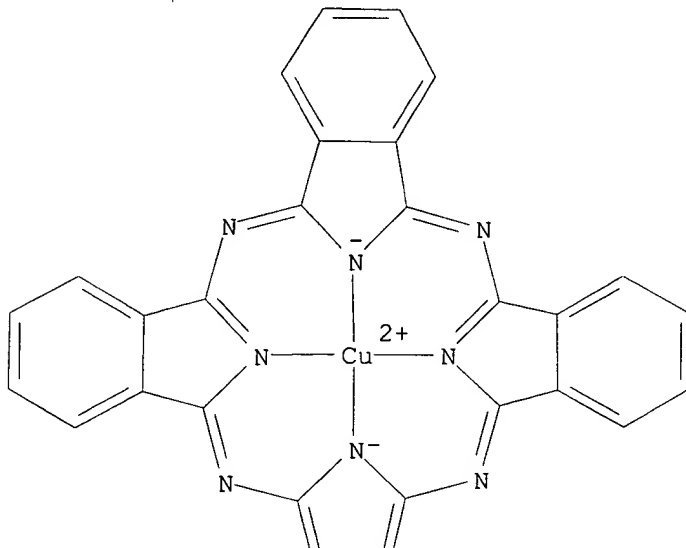
IT 147-14-8, Copper, [phthalocyaninato(2-)]- 5141-20-8,  
C.I. Acid Green 5 6104-59-2, C.I. Acid Blue 83 6505-30-2

, C.I. Acid Blue 104 **7253-35-2**, C.I. Acid Blue 109  
(as oxidn.-redn. indicator)

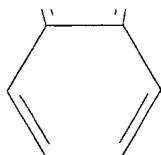
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.ka  
ppa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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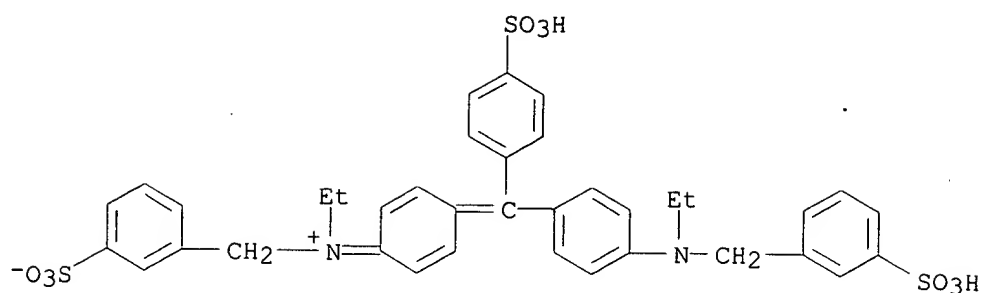


PAGE 2-A



RN 5141-20-8 HCA

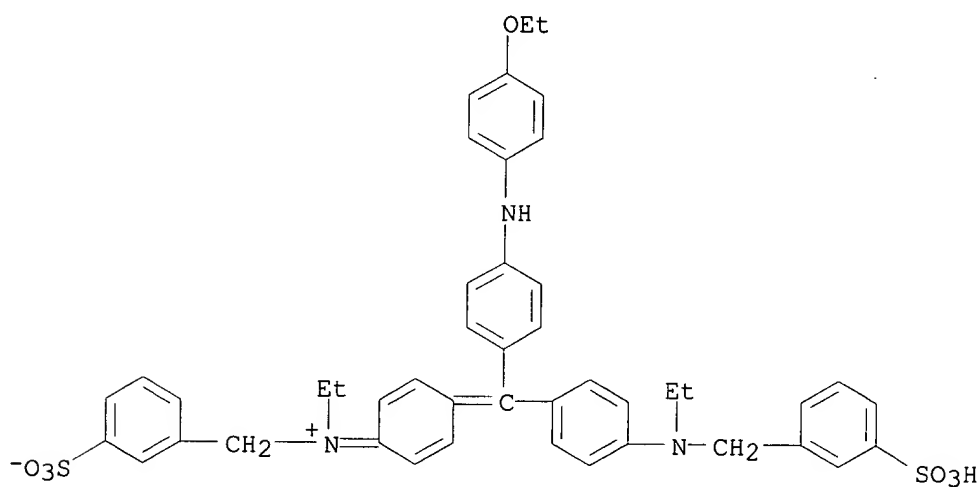
CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-  
sulfophenyl)methyl]amino]phenyl](4-sulfophenyl)methylene]-2,5-  
cyclohexadien-1-ylidene]-3-sulfo-, inner salt, disodium salt (9CI) (CA  
INDEX NAME)



● 2 Na

RN 6104-59-2 HCA

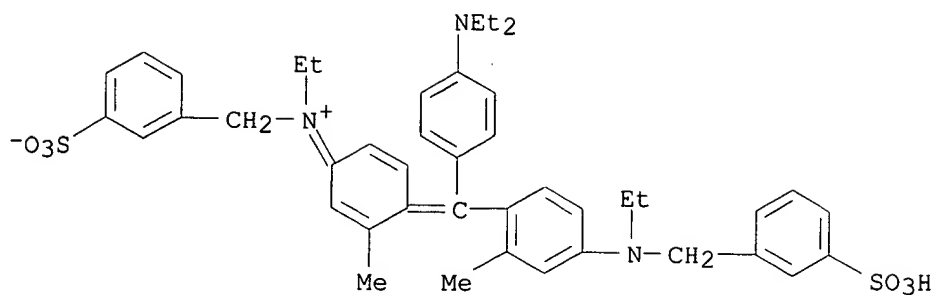
CN Benzenemethanaminium, N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



● Na

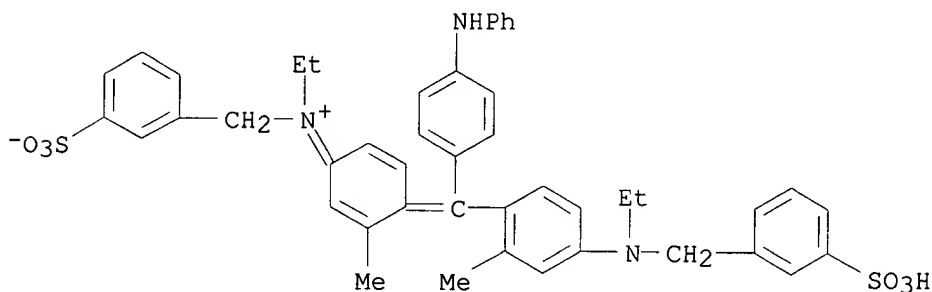
RN 6505-30-2 HCA

CN Benzenemethanaminium, N-[4-[[4-(diethylamino)phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 7253-35-2 HCA  
 CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]-2-methylphenyl][4-(phenylamino)phenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



● Na

=&gt; d L53 1-2 ibib abs hitstr

L53 ANSWER 1 OF 2 HCA COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 132:156496 HCA  
 TITLE: Identification of illegal coal tar dyes constituents  
 in mucous cosmetics by HPLC method  
 AUTHOR(S): Wu, Kun-Shan; Wu, An-Bang; Huang, Ming-Chuan; Chen,  
 Chau-Yang  
 CORPORATE SOURCE: Graduate Institute of Pharmaceutical Science, Taipei  
 Medical College, Taipei, 110, Taiwan  
 SOURCE: Yaowu Shipin Fenxi (1999), 7(2), 95-105  
 CODEN: YSFEEP; ISSN: 1021-9498  
 PUBLISHER: National Laboratories of Food and Drugs, Dep. of  
 Health, Executive Yuan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Illegal coal tar dyes are reported to have strong toxicity and

carcinogenicity when added in mucous cosmetics. According to CNS, current methods in analyzing org. coloring materials (dyes) are mainly filter paper chromatog. and TLC. In this study, we adopted a refined HPLC procedure reaching optimal conditions for the sepn. and identification of the coloring constituents allegedly added in mucous cosmetics. Ultimately, the anal. efficiency and precision are greatly improved. The optimal conditions for the HPLC method were found with a column of Cosmosil 5C18-AR-II; with the first mobile phase using 0.07M NH4OAc soln. in 0.01M tetrabutylammonium bromide-MeCN-MeOH (55:35:10) for analyzing 16 hydrophilic coal tar dyes, while the second mobile phase uses MeOH-H2O (95:5) for analyzing 6 hydrophobic dyes and a photodiode array detector within UV-VIS wavelength. By applying this HPLC method, a total of 22 banned coal tar dye constituents were satisfactorily sepd. The detection limit was improved to 0.05 .mu.g/mL.

IT 147-14-8, C.I. 74160 4680-78-8, C.I. 42085

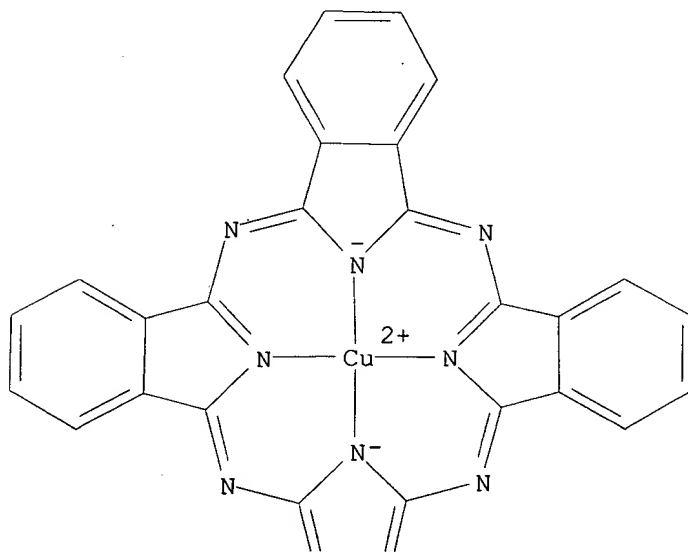
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(identification of illegal coal tar dyes in cosmetics by HPLC)

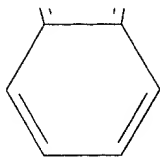
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

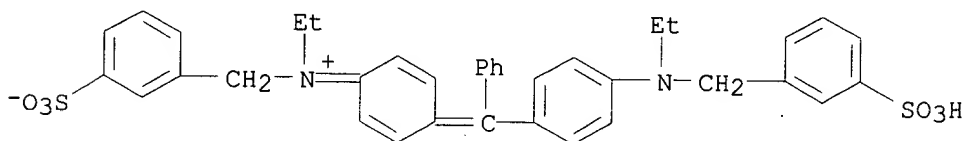
PAGE 1-A



PAGE 2-A



RN 4680-78-8 HCA  
CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)

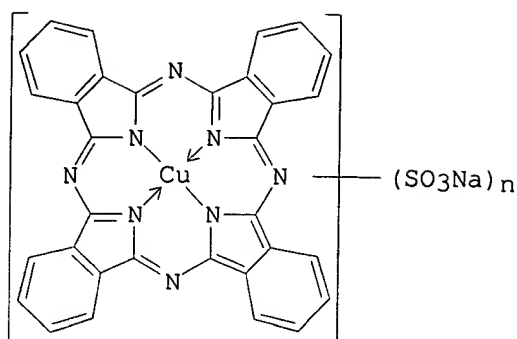


● Na

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 2 OF 2 HCA COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 101:92978 HCA  
TITLE: Inks for wire-dot printers  
PATENT ASSIGNEE(S): Pentel Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59001580	A2	19840106	JP 1982-110985	19820628
JP 03045751	B4	19910712		
PRIORITY APPLN. INFO.: GI			JP 1982-110985	19820628



AB The title inks contain water, urea [57-13-6] (and/or its derivs.), water-sol. org. solvent, and water-sol. dye (1-12% based on total wt. ink) composed of phthalocyanine water-sol. dye I ( $n = 2-4$ ) and .gtoreq.1 triphenylmethane acid dye selected from C.I. Acid Blue 1, 7, 9, 15, 22, 83, 90, 93, 100, 103, and 104 and C.I. Acid Green 3, 9 and 16. The magenta inks are excellent in color reproducibility and light stability. Thus, Water Blue 117-L (mixt. of Na disulfonate and Na trisulfonate of phthalocyanine) [91433-26-0] 18, Daiwa Green 70 (C.I. Acid Green 16) [12768-78-4] 0.3, ethylene glycol 15, diethylene glycol 5, urea 7, Na pentachlorophenolate (10% aq. soln.) 0.1, NaOH (25% aq. soln.) 0.1, benzotriazole 0.4, hydroxypropyl cellulose (1% aq. soln.) 15, and water 39.1 parts were mixed and filtered to give a cyan ink (viscosity 5.1 cP, surface tension 46.3 dyne/cm).

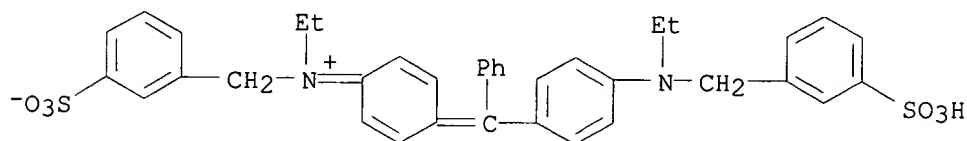
IT **4680-78-8**

RL: USES (Uses)

(inks contg. phthalocyanine dyes and, aq., for wire-dot printers)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IT **147-14-8D**, sulfonated, sodium salts

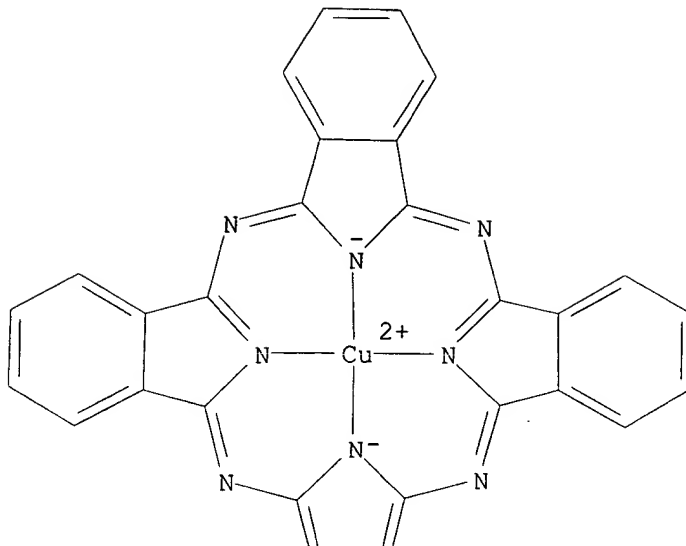
RL: USES (Uses)

(inks contg., for wire-dot printers)

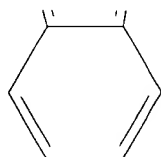
RN 147-14-8 HCA

CN Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A



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=> d L54 1,3,5 cbib abs hitstr

L54 ANSWER 1 OF 5 HCA COPYRIGHT 2003 ACS

129:31699 Study on treatment of dyeing wastewater by ACF electrode method. Zhao, Shaoling; Jia, Jinping (Shanghai Textile College, Shanghai, 200051, Peop. Rep. China). Shanghai Huanjing Kexue, 16(5), 24-27 (Chinese) 1997. CODEN: SHUKE9. ISSN: 1000-3975. Publisher: Shanghai Huanjing Kexue Bianjibu.

AB A new catalytic electrode prepd. from activated C fibers was used to treat synthetic dyeing solns. of 18 types of water-sol. and -insol. dyes and dyeing wastewater by electrolysis. The removal rate was 95-100% for chromaticity and 40-70% for CODcr. The reaction mechanism in the electrochem. treatment system was discussed. The treatment is a combination process of adsorption, radical polymn., and flocculation.

IT 4680-78-8, Acid Green B

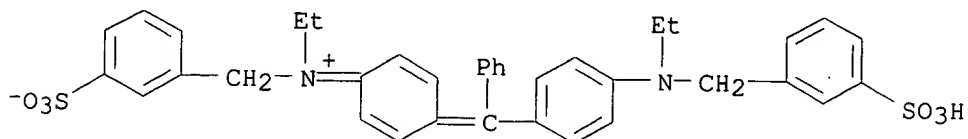
RL: REM (Removal or disposal); PROC (Process)

(Acid Green B; treatment of dyeing wastewater by activated charcoal fiber (ACF) electrode method)



RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

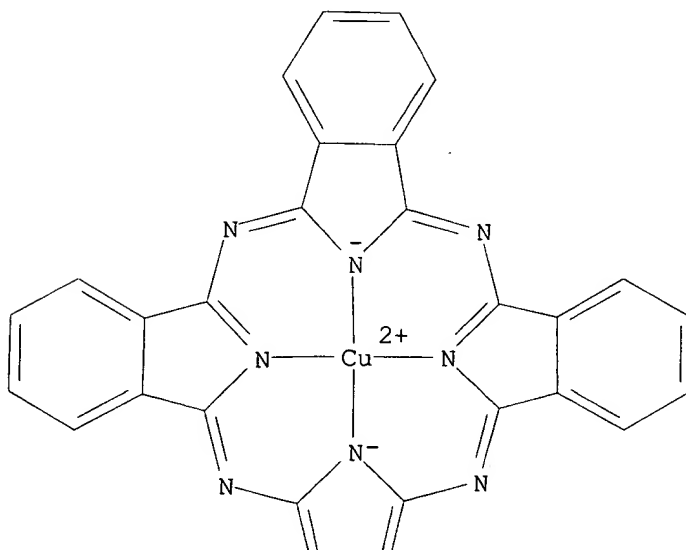
IT 1330-38-7, Direct Emerald Blue GL 206010-31-3, Direct  
Lightfast Emerald Blue GL

RL: REM (Removal or disposal); PROC (Process)  
(treatment of dyeing wastewater by activated charcoal fiber (ACF)  
electrode method)

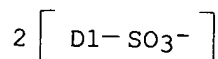
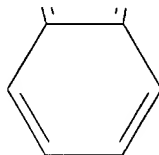
RN 1330-38-7 HCA

CN Cuprate(2-), [29H,31H-phthalocyanine-C,C-disulfonato(4-)-  
.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, disodium (9CI) (CA INDEX  
NAME)

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RN 206010-31-3 HCA

L54 ANSWER 3 OF 5 HCA COPYRIGHT 2003 ACS

108:173343 Determination of organic colorants in cosmetic products by high-performance liquid chromatography. Wegener, J. W.; Klammer, J. C.; Govers, H.; Brinkman, U. A. T. (Inst. Environ. Stud., Free Univ., Amsterdam, 1007 MC, Neth.). Chromatographia, 24, 865-75 (English) 1987. CODEN: CHRGB7. ISSN: 0009-5893.

AB HPLC with UV detection was used for the detn. of org. dyes in cosmetics. One hundred and twenty-six colorants were characterized by their retention times in an ion pair reversed-phase HPLC system with gradient elution, and by their UV spectra, recorded with a diode array detector (DAD). The method is rapid and efficient, as was demonstrated by the anal. of 45 cosmetic samples.

IT 1330-38-7, Direct Blue 86 4680-78-8, Acid Green

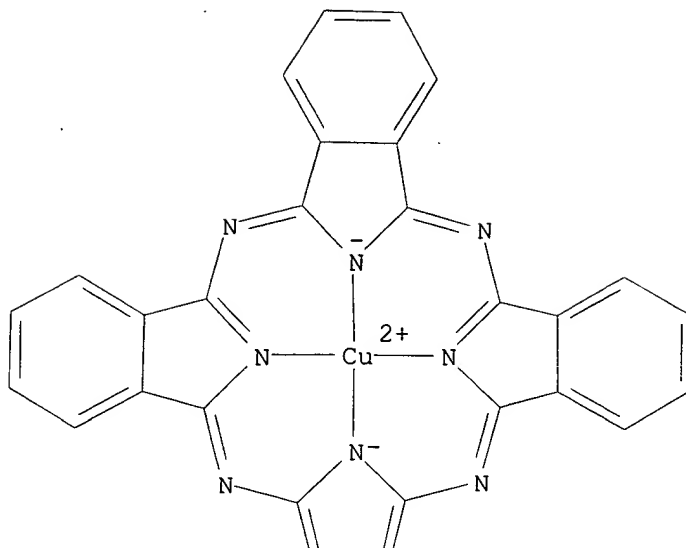
RL: ANT (Analyte); ANST (Analytical study)

(detn. of, in cosmetics by ion-pair reversed-phase HPLC)

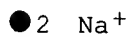
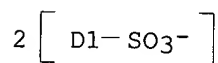
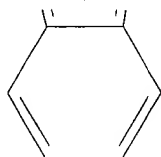
RN 1330-38-7 HCA

CN Cuprate(2-), [29H,31H-phthalocyanine-C,C-disulfonato(4-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, disodium (9CI) (CA INDEX NAME)

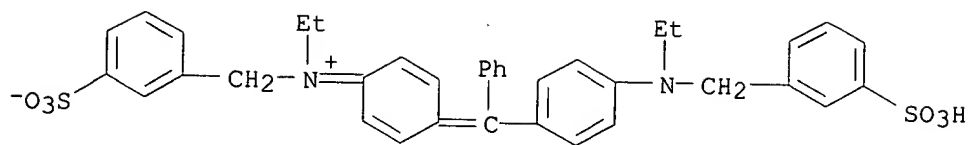
PAGE 1-A



PAGE 2-A



RN 4680-78-8 HCA  
 CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

L54 ANSWER 5 OF 5 HCA COPYRIGHT 2003 ACS

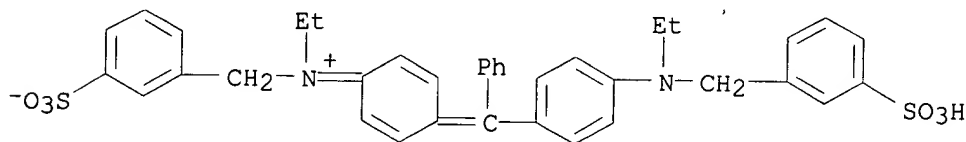
45:59129 Original Reference No. 45:10053g-h Measurement of absorption in solutions of green, blue, and violet dyes. Ringer, A. (Kornmarkt 3, Muhlhausen/Thur., Germany). Pharmazie, 6, 44-8,103-7,156-61 (Unavailable) 1951.

AB cf. C.A. 45, 2632b. The following are discussed and absorption curves (step photometer) and max. given: Cr<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·12 H<sub>2</sub>O, Cr peroxide, Na cupritartrate, KMnO<sub>4</sub>, I, Nd, Guinea Green B, Alizarinecyanine Green G extra, bromophenol blue, bromothymol blue, thymolphthalein, methylene blue, Thionine Blue GO, Giemsa stain, May-Grunwald stain, Victoria Blue R. Victoria Blue 4R, Patent Blue V, Aniline Blue, methyl violet, Diamine Black BH, Chicago Blue, Diamine Blue 3B, Dianil Blue B, phthalocyanine, indigo, Indanthrene Blue RS, Brilliant Indigo BASF/B, and coloring matters from Alkanna tinctoria, Delphinium consolida, and Althaea rosea.

IT **4680-78-8**, Guinea Green B **128953-47-9**, Phthalocyanine, copper deriv. (spectrum of)

RN 4680-78-8 HCA

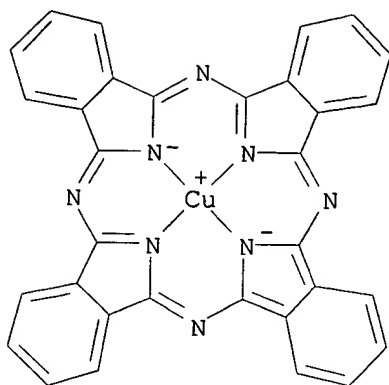
CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 128953-47-9 HCA

CN Phthalocyanine, copper deriv. (6CI) (CA INDEX NAME)



● K<sup>+</sup>

=> d L56 1,50,100,150, 170, 173, 177 cbib abs hitstr

L56 ANSWER 1 OF 177 HCA COPYRIGHT 2003 ACS

132:156496 Identification of illegal coal tar dyes constituents in mucous cosmetics by HPLC method. Wu, Kun-Shan; Wu, An-Bang; Huang, Ming-Chuan; Chen, Chau-Yang (Graduate Institute of Pharmaceutical Science, Taipei Medical College, Taipei, 110, Taiwan). Yaowu Shipin Fenxi, 7(2), 95-105 (English) 1999. CODEN: YSFEEP. ISSN: 1021-9498. Publisher: National Laboratories of Food and Drugs, Dep. of Health, Executive Yuan.

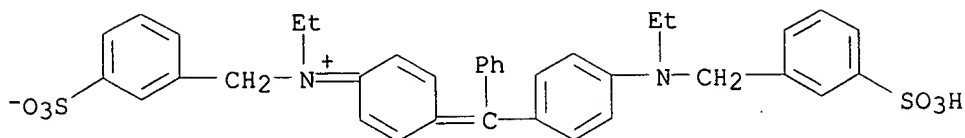
AB Illegal coal tar dyes are reported to have strong toxicity and carcinogenicity when added in mucous cosmetics. According to CNS, current methods in analyzing org. coloring materials (dyes) are mainly filter paper chromatog. and TLC. In this study, we adopted a refined HPLC procedure reaching optimal conditions for the sepn. and identification of the coloring constituents allegedly added in mucous cosmetics. Ultimately, the anal. efficiency and precision are greatly improved. The optimal conditions for the HPLC method were found with a column of Cosmosil 5C18-AR-II; with the first mobile phase using 0.07M NH4OAc soln. in 0.01M tetrabutylammonium bromide-MeCN-MeOH (55:35:10) for analyzing 16 hydrophilic coal tar dyes, while the second mobile phase uses MeOH-H2O (95:5) for analyzing 6 hydrophobic dyes and a photodiode array detector within UV-VIS wavelength. By applying this HPLC method, a total of 22 banned coal tar dye constituents were satisfactorily sepd. The detection limit was improved to 0.05 .mu.g/mL.

IT 4680-78-8, C.I. 42085

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(identification of illegal coal tar dyes in cosmetics by HPLC)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfo-phenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

L56 ANSWER 50 OF 177 HCA COPYRIGHT 2003 ACS

106:51576 Studies on recycle system of dyeing wastewater. Kuwabara, Shigeru (Res. Inst. Polym. Text., Tsukuba, 305, Japan). Sen'i Gakkaishi, 41(11), T485-T495 (Japanese) 1985. CODEN: SENGAS. ISSN: 0037-9875.

AB The adsorption behavior of model dyeing wastewater contg. surfactants, dyes, and salts on activated carbon was studied at .ltoreq.80.degree., and regeneration of the adsorbent by solvents was also studied. The adsorption of acid and direct dyes and surfactant increased with increasing integral pore vols. of activated carbon. The satn. adsorption decreased with increasing mol. wt. of dyes and decreasing oxyethylene chain length in surfactants. The breakthrough capacity of activated carbon increased with increasing temp. of the wastewater. The anionic dye and surfactant adsorption increased with decreasing pH of the wastewater, due to reduced soly. of dyes, and this effect was enhanced with increasing no. of sulfo groups in the dyes and surfactants. Max. desorption of spent adsorbent was obtained with mixed solvents having soly. parameter 14-18.

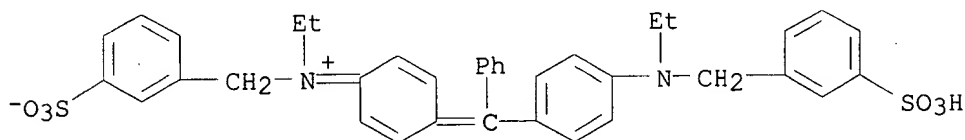
IT 4680-78-8

RL: USES (Uses)

(dye, in dyeing wastewater, adsorption of, on activated carbon, factors affecting)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulphophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



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74:57215 Speckled tooth paste. Ritze, Lyle W.; Catlin, Robert A. (Procter and Gamble Co.). Ger. Offen. DE 2031676 19710107, 16 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1970-2031676 19700626.

AB Speckled tooth paste was prepd. contg. particles of 200-500 .mu. prepd. from pigment particles agglomerated with waxes or gels. The pigment particles were copolymers of melamine and H2CO, or from urea and H2CO. Thus, green urea-H2CO resin particles were added to melted carnauba wax,

mixed, and dried. A tooth paste was prepd. from green particles described above 0.65, Ca2P2O7 40.79, 70% sorbitol 20.39, glycerol 10.19, Na cocosulfonate monoglyceride 0.76, Na CM-cellulose 1.20, Na coconutalkyl sulfate 2.29, NaF 0.22, flavors 1.14%, and H2O balance to 100%. The agglomerates caused no unpleasant granular feeling.

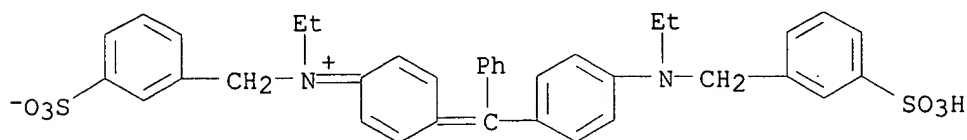
IT 4680-78-8

RL: BIOL (Biological study)

(pigments, contg. agglomerating agents for speckled dentifrices)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



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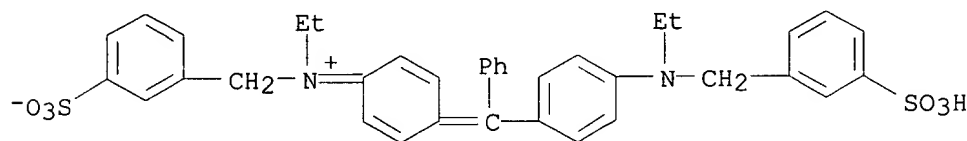
53:46965 Original Reference No. 53:8462i,8463a Paper chromatography of synthetic dyes authorized for use in food. I. Puche, Rodolfo Carlos T. (Maipu 835, Rosario, Argent.). Publs. inst. invest. microquim., Univ. nacl. litoral (Rosario, Arg.), 21(No. 23), 134-46 (English) 1957.

AB Two-dimensional chromatography (solvents: BuOH satd. with 10% HCl soln.; a mixt. of 0.5 ml. xylidine, 5 ml. 33.53% aq. HCl, and 10 ml. water) was performed with the following dyes (0.3% aq. soln.): erythrosine, Rose Bengal, Red Burdeos, Red Ponceau 2R, Orange I, Sunset Yellow, indigotin, Naphthol Yellow S, tartrazine, Acid Violet 6B, and Guinea Green B. The results and the Rf values are tabulated.

IT 4680-78-8, Guinea Green B  
(chromatography of)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)

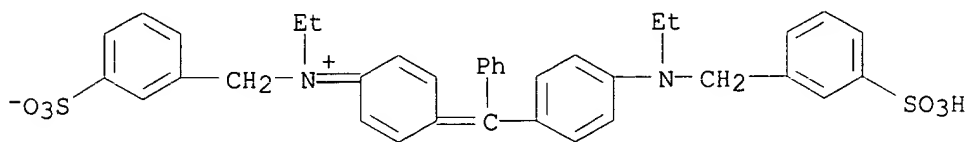


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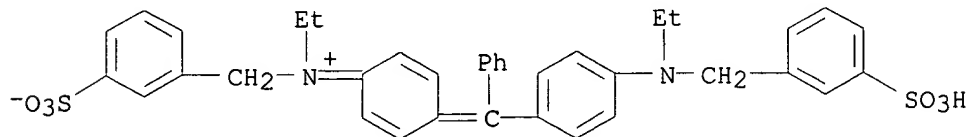
46:43001 Original Reference No. 46:7208a-b Staining and swelling the flocculated mass of the precipitation reaction. Yamaguchi, Isuke

- (Nagasaki Med. Coll.). Japan. Med. J., 2, 70-2 (Unavailable) 1949.
- AB Goat serum and its rabbit antiserum, and egg albumin and its goat antiserum were used. One cc. of antigen (1:10), 1 cc. antiserum (1:20), and 0.5 cc. dye were mixed, incubated 2 hrs. at 37.degree., allowed to stand 18 hrs. at room temp., and centrifuged. The dyes which gave the best results in staining and swelling the ppt. were: methyl violet B, acid green, pyronin, safranin G, Bismark brown (I), chrysoidin, Congo red, scarlet red, trypan blue, and vital red. The swelling was 1.2-2.0 times that of the control without the dye. I gave the best results.
- IT **4680-78-8**, Acid Green  
(in precipitin reaction)
- RN 4680-78-8 HCA
- CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



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- L56 ANSWER 173 OF 177 HCA COPYRIGHT 2003 ACS
- 45:2228 Original Reference No. 45:367c-d Toner manufacture. Schmutzler, Alfred F.; Othmer, Donald F. US 2525834 19501017 (Unavailable).  
APPLICATION: US .
- AB An aq. soln. of an inorg. salt (I), which will act as an oxidizing agent, if added to one of the solns. from which a toner is prepd. will improve the light fastness during subsequent heating of the ppt. The I may consist of chromates, dichromates, vanadates, cerates, or permanganates. Examples of prepn. of toners from Rhodamine B (II) employ Na2Cr2O7 2 to II 10 parts. Similar light-fast toners may be produced from the following dyes: Cyanol Extra, Chrome green, Red Coralline, Muscarine chloride, or Helvetia Green.
- IT **4680-78-8**, Acid Green  
(light-fast toners from)
- RN 4680-78-8 HCA
- CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



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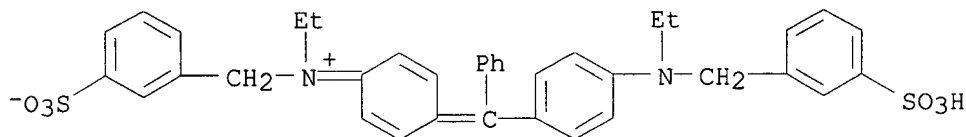
42:10997 Original Reference No. 42:2396g-i,2397a An experimental study of the stability of certain factors of vitamin B complex toward various food, drug, and cosmetic colors. Epley, Harold C.; Hall, Alvah G. (Univ. of Southern California, Los Angeles). Am. J. Pharm., 119, 309-14 (Unavailable) 1947.

AB It appears that some of the factors of the vitamin B complex, notably riboflavin and pyridoxine, are unstable toward several of the (F.D.& C.) colors. Thiamine was stable toward all the colors tested except F.D.&C. red No. 3. Thiamine apparently slowly reacted with F.D.&C. red No. 3, as a red ppt. slowly formed concurrently with the decrease of thiamine in the soln. F.D.&C. yellow No. 1 and F.D.&C. green No. 3 apparently caused destruction of riboflavin while F.D.&C. red No. 3 and F.D.&C. orange I seemed to protect it from photochem. destruction. F.D.&C. red No. 3, F.D.&C. yellow No. 1, F.D.&C. green No. 1, F.D.&C. green No. 3 and F.D.&C. blue No. 2 apparently caused destruction of pyridoxine. On the other hand, F.D.&C. red No. 2 and F.D.&C. yellow No. 5 seemed to give protection from photochem. destruction. Nicotinamide was not affected by any of the F.D.&C. colors tested. It is recommended that the above work be repeated, by use of biological or microbiological methods of assay, before definite conclusions are reached because of the possibility of the formation of complex addn. products between the colors and the vitamin factors.

IT **4680-78-8**, Guinea Green B  
(reaction with pyridoxine)

RN 4680-78-8 HCA

CN Benzenemethanaminium, N-ethyl-N-[4-[[4-[ethyl[(3-sulphophenyl)methyl]amino]phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-3-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



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=> d his

(FILE 'HOME' ENTERED AT 08:55:20 ON 03 JUN 2003)  
DEL WALKE2/L  
DEL WALKE3/L  
DEL WALKPIR/L  
DEL WALKPYR/L

L1 FILE 'LREGISTRY' ENTERED AT 08:56:28 ON 03 JUN 2003  
STR

L2 FILE 'REGISTRY' ENTERED AT 08:59:13 ON 03 JUN 2003  
50 S L1  
L3 7045 S L1 FULL  
SAVE L3 WALK772/A

L4 FILE 'LREGISTRY' ENTERED AT 09:00:28 ON 03 JUN 2003  
STR L3

L5 FILE 'REGISTRY' ENTERED AT 09:03:52 ON 03 JUN 2003  
2 S L4 SSS SAM SUB=L3

L6 FILE 'LREGISTRY' ENTERED AT 09:04:58 ON 03 JUN 2003  
STR L4

L7 FILE 'REGISTRY' ENTERED AT 09:08:10 ON 03 JUN 2003  
0 S L6 SSS SAM SUB=L3

L8 FILE 'LREGISTRY' ENTERED AT 09:09:46 ON 03 JUN 2003  
STR L6

L9 FILE 'REGISTRY' ENTERED AT 09:10:40 ON 03 JUN 2003  
0 S L8 SSS SAM SUB=L3

L10 FILE 'LREGISTRY' ENTERED AT 09:11:52 ON 03 JUN 2003  
STR L8

L11 FILE 'REGISTRY' ENTERED AT 09:13:09 ON 03 JUN 2003  
11 S L10 SSS SUB=L3 SAM

L12 FILE 'LREGISTRY' ENTERED AT 09:14:18 ON 03 JUN 2003  
STR L8

L13 FILE 'REGISTRY' ENTERED AT 09:14:58 ON 03 JUN 2003  
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L14 STR L10  
L15 11 S L14 SSS SAM SUB=L3

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E 20020042008/PN  
E US20020042008/PN

L16 FILE 'HCAPLUS' ENTERED AT 09:18:01 ON 03 JUN 2003  
E US20020042008/PN  
1 S E3

L17 FILE 'LREGISTRY' ENTERED AT 09:18:39 ON 03 JUN 2003  
STR L14

FILE 'REGISTRY' ENTERED AT 09:20:04 ON 03 JUN 2003

L18 10 S L17 SSS SAM SUB=L3  
FILE 'LREGISTRY' ENTERED AT 09:20:41 ON 03 JUN 2003  
L19 STR L17  
FILE 'REGISTRY' ENTERED AT 09:22:35 ON 03 JUN 2003  
L20 8 S L19 SSS SAM SUB=L3  
L21 217 S L19 SSS FULL SUB=L3  
SAVE WALK772A/A L21  
FILE 'HCA' ENTERED AT 09:23:46 ON 03 JUN 2003  
L22 2557 S L21  
L23 554 S L22 AND 2000-2003/PY  
FILE 'REGISTRY' ENTERED AT 09:24:21 ON 03 JUN 2003  
FILE 'LREGISTRY' ENTERED AT 09:25:38 ON 03 JUN 2003  
FILE 'REGISTRY' ENTERED AT 09:28:50 ON 03 JUN 2003  
L24 196 S L21 AND 1-2/NC  
FILE 'LREGISTRY' ENTERED AT 09:30:50 ON 03 JUN 2003  
L25 STR L19  
FILE 'REGISTRY' ENTERED AT 09:43:19 ON 03 JUN 2003  
L26 2 S L25 SSS SAM SUB=L3  
L27 89 S L25 SSS FULL SUB=L3  
SAVE L27 WALK772B/A  
L28 128 S L21 NOT L27  
FILE 'HCA' ENTERED AT 09:45:01 ON 03 JUN 2003  
L29 1004 S L27  
L30 127 S L29 AND 2000-2003/PY  
L31 877 S L29 NOT L30  
FILE 'REGISTRY' ENTERED AT 09:46:04 ON 03 JUN 2003  
L32 18692 S 13605/RID  
FILE 'HCA' ENTERED AT 09:46:45 ON 03 JUN 2003  
L33 25888 S L32  
L34 42 S L31 AND L33  
FILE 'REGISTRY' ENTERED AT 09:47:11 ON 03 JUN 2003  
E COPPER PHTHALOCYANINE/CN  
L35 1 S E3  
FILE 'HCA' ENTERED AT 09:47:52 ON 03 JUN 2003  
L36 11111 S L35  
L37 13 S L31 AND L36  
FILE 'LREGISTRY' ENTERED AT 09:49:26 ON 03 JUN 2003  
L38 STR L25  
FILE 'REGISTRY' ENTERED AT 09:50:16 ON 03 JUN 2003  
L39 0 S L38 SSS SAM SUB=L3  
L40 STR L38  
L41 0 S L40 SSS SAM SUB=L3  
L42 129 S L21 AND 1-2/S  
L43 54 S L42 AND 2/N  
L44 21 S L43 AND 1-8/X

L45 33 S L43 NOT L44  
L46 STR L40  
L47 0 S L46 SSS SAM SUB=L3  
L48 17 S L46 SSS FULL SUB=L3  
SAVE L48 WALK772C/A

FILE 'HCA' ENTERED AT 09:55:09 ON 03 JUN 2003

L49 195 S L48  
L50 12 S L49 AND 2001-2003/PY  
L51 183 S L49 NOT L50  
L52 7 S L51 AND L33  
L53 2 S L51 AND L36  
L54 5 S L52 NOT L53  
L55 18 S L49 AND 2000-2003/PY  
L56 177 S L49 NOT L55

FILE 'REGISTRY' ENTERED AT 09:59:07 ON 03 JUN 2003

FILE 'HCA' ENTERED AT 09:59:24 ON 03 JUN 2003

=> d cost

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

CONNECT CHARGES	8.36	60.53
NETWORK CHARGES	0.24	5.88
SEARCH CHARGES	0.00	281.99
DISPLAY CHARGES	108.00	108.00

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116.60	456.40

CAPLUS FEE (5%)	0.00	0.10
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FULL ESTIMATED COST	116.60	456.50
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION

CA SUBSCRIBER PRICE	-15.50	-15.50
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IN FILE 'HCA' AT 10:01:52 ON 03 JUN 2003